

Hydrogen production from renewable and sustainable energy carrier for clean development

Renewable and Sustainable Energy Reviews

57, 850-866

DOI: [10.1016/j.rser.2015.12.112](https://doi.org/10.1016/j.rser.2015.12.112)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Fuel Cell as Range Extender in Battery Electric Vehicles for Supply Chain Fleets. , 2016, , .		2
2	Photoelectrochemical splitting of water to produce a power appetizer Hydrogen: A green system for future " (A short review). Oriental Journal of Chemistry, 2016, 32, 1473-1483.	0.1	6
3	Hydrogen Generation from Catalytic Steam Reforming of Acetic Acid by Ni/Attapulgitite Catalysts. Catalysts, 2016, 6, 172.	1.6	36
4	Effect of operating conditions on the sorption enhanced steam reforming of blends of acetic acid and acetone as bio-oil model compounds. Applied Energy, 2016, 177, 579-590.	5.1	52
5	A coordinated approach for frequency control of zero emission based smart PV-wind-battery power system. , 2016, , .		2
6	Performance of a Thermally Coupled Hydrogen Storage and Fuel Cell System Under Different Operation Conditions. Journal of Electrochemical Energy Conversion and Storage, 2016, 13, .	1.1	2
7	Enhanced photoelectrochemical properties of nano-CdS sensitized micro-nanoporous TiO ₂ thin films from gas/liquid interface assembly. Journal of Alloys and Compounds, 2016, 684, 616-623.	2.8	10
8	Comparing the value of bioproducts from different stages of anaerobic membrane bioreactors. Bioresource Technology, 2016, 214, 816-825.	4.8	65
9	Hydrogen sensing properties of sputtered ZnO films decorated with Pt nanoparticles. Ceramics International, 2016, 42, 12378-12384.	2.3	56
10	Hydrogen Production with a Simple and Scalable Membraneless Electrolyzer. Journal of the Electrochemical Society, 2016, 163, F3012-F3019.	1.3	65
11	A comparison of energy storage from renewable sources through batteries and fuel cells: A case study in Turin, Italy. International Journal of Hydrogen Energy, 2016, 41, 21427-21438.	3.8	45
12	Gold-containing metal nanoparticles for catalytic hydrogen generation from liquid chemical hydrides. Chinese Journal of Catalysis, 2016, 37, 1594-1599.	6.9	31
13	Effect of surfactants on electrocatalytic performance of copper nanoparticles for hydrogen evolution reaction. Journal of Molecular Liquids, 2016, 222, 1068-1075.	2.3	25
14	Kinetics of the steam reforming of dimethyl ether over CuFe ₂ O ₄ /Al ₂ O ₃ . Chemical Engineering Journal, 2016, 306, 401-412.	6.6	22
15	Red Mud as an Efficient, Stable and Cost-Free Catalyst for CO _x -Free Hydrogen Production from Ammonia. Scientific Reports, 2016, 6, 32279.	1.6	42
16	A New Application for Colloidal Silica Particles: Natural, Environmentally Friendly, Low-Cost, and Reusable Catalyst Material for H ₂ Production from NaBH ₄ Methanolysis. Industrial & Engineering Chemistry Research, 2016, 55, 11245-11252.	1.8	50
17	Carbon dioxide activation and transformation to HCOOH on metal clusters (M = Ni, Pd, Pt, Cu, Ag) density functional theory. RSC Advances, 2016, 6, 100829-100840.	1.7	7
18	Redox Kinetics Study of Fuel Reduced Ceria for Chemical-Looping Water Splitting. Journal of Physical Chemistry C, 2016, 120, 16271-16289.	1.5	79

#	ARTICLE	IF	CITATIONS
19	Electrocatalytic hydrogen production on a modified pencil graphite electrode. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 2457-2463.	3.8	18
20	Cavity-Enhanced Raman Spectroscopy in the Biosciences: In Situ, Multicomponent, and Isotope Selective Gas Measurements To Study Hydrogen Production and Consumption by <i>Escherichia coli</i> . <i>Analytical Chemistry</i> , 2017, 89, 2147-2154.	3.2	27
21	Iron oxide ores as carriers for the production of high purity hydrogen from biogas by steam-iron process. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 13607-13616.	3.8	18
22	Recent advancements in optical fiber hydrogen sensors. <i>Sensors and Actuators B: Chemical</i> , 2017, 244, 393-416.	4.0	152
23	Conceptual design, process integration, and optimization of a solar Cu Cl thermochemical hydrogen production plant. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 2771-2789.	3.8	31
24	Glycerol and mixture of carbon sources conversion to hydrogen by <i>Clostridium beijerinckii</i> DSM791 and effects of various heavy metals on hydrogenase activity. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 7875-7882.	3.8	35
25	Hydrogen applications and research activities in its production routes through catalytic hydrocarbon conversion. <i>Reviews in Chemical Engineering</i> , 2017, 34, 43-72.	2.3	45
26	Two-Dimensional (2D) Nanomaterials towards Electrochemical Nanoarchitectonics in Energy-Related Applications. <i>Bulletin of the Chemical Society of Japan</i> , 2017, 90, 627-648.	2.0	369
27	Significant influence of cutting-edge plasma technology on catalytic properties and performance of CuO-ZnO-Al ₂ O ₃ -ZrO ₂ nanocatalyst used in methanol steam reforming for fuel cell grade hydrogen production. <i>Ceramics International</i> , 2017, 43, 6201-6213.	2.3	22
28	Molybdenum sulphides on carbon supports as electrocatalysts for hydrogen evolution in acidic industrial wastewater. <i>Applied Energy</i> , 2017, 190, 1221-1233.	5.1	34
29	Active, Simple Iridium-Copper Hydrous Oxide Electrocatalysts for Water Oxidation. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5480-5486.	1.5	27
30	Process simulation and assessment of hydrogen and high valued hydrocarbon fuels products from oil shale. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 4922-4934.	3.8	13
31	Structural, electronic and optical properties of Bi ₂ O ₃ polymorphs by first-principles calculations for photocatalytic water splitting. <i>Materials Research Express</i> , 2017, 4, 034002.	0.8	17
32	Gasification of diosgenin solid waste for hydrogen production in supercritical water. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 9448-9457.	3.8	29
33	Process Analysis for the Production of Hydrogen and Liquid Fuels from Oil Shale. <i>Energy Technology</i> , 2017, 5, 1963-1978.	1.8	3
34	Template-free synthesis of mesoporous manganese oxides with catalytic activity in the oxygen evolution reaction. <i>Sustainable Energy and Fuels</i> , 2017, 1, 780-788.	2.5	31
35	Investigation of hydrogen production methods in accordance with green chemistry principles. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 23395-23401.	3.8	105
36	Maximizing the production of butyric acid from food waste as a precursor for ABE-fermentation. <i>Science of the Total Environment</i> , 2017, 598, 993-1000.	3.9	43

#	ARTICLE	IF	CITATIONS
37	Techno-economic feasibility of a photovoltaic-wind power plant construction for electric and hydrogen production: A case study. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 78, 113-123.	8.2	131
38	Density Functional Theory and ab Initio Molecular Dynamics Investigation of Hydronium Interactions with Graphene. <i>Energy Procedia</i> , 2017, 110, 518-522.	1.8	4
39	High purity hydrogen from coupled dry reforming and steam iron process with cobalt ferrites as oxygen carrier: Process improvement with the addition of NiAl ₂ O ₄ catalyst. <i>Catalysis Today</i> , 2017, 296, 163-169.	2.2	10
40	Renewable hydrogen production from bio-oil derivative via catalytic steam reforming: An overview. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 79, 347-357.	8.2	156
41	Investigation of a novel concept for hydrogen production by PEM water electrolysis integrated with multi-junction solar cells. <i>Energy Conversion and Management</i> , 2017, 148, 16-29.	4.4	74
42	Hydrogen Production from Oxygenated Hydrocarbons: Review of Catalyst Development, Reaction Mechanism and Reactor Modeling. , 2017, , 1-76.		2
43	Design of a solar light-responsive metal oxide/CdS/SrTiO ₃ catalyst with enhanced charge separation for hydrogen evolution. <i>Solar Energy</i> , 2017, 147, 240-247.	2.9	23
44	Biomass combustion with hydrogen injection for energy applications. <i>Energy</i> , 2017, 127, 351-357.	4.5	30
45	Investigation of the promoting effect of Mn on a Pt/C catalyst for the steam and aqueous phase reforming of glycerol. <i>Journal of Catalysis</i> , 2017, 349, 75-83.	3.1	40
46	Assessing the potential of CO ₂ utilization with an integrated framework for producing power and chemicals. <i>Journal of CO₂ Utilization</i> , 2017, 19, 49-57.	3.3	43
47	Catalytic gasification of oil palm frond biomass in supercritical water using MgO supported Ni, Cu and Zn oxides as catalysts for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 11215-11228.	3.8	47
48	H ₂ production by the steam reforming of excess boil off gas on LNG vessels. <i>Energy Conversion and Management</i> , 2017, 134, 301-313.	4.4	18
49	Research and development perspectives of lignocellulose-based biohydrogen production. <i>International Biodeterioration and Biodegradation</i> , 2017, 119, 225-238.	1.9	35
50	Hydrogen production: Perspectives, separation with special emphasis on kinetics of WGS reaction: A state-of-the-art review. <i>Journal of Industrial and Engineering Chemistry</i> , 2017, 49, 1-25.	2.9	92
51	Pt nanoparticles immobilized in mesoporous silica-coated magnetic nanocapsules: A non-leaching catalyst for hydrogen generation from hydrolysis of ammonia borane. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 27034-27042.	3.8	23
52	Strategic Planning for the Supply Chain of Aviation Biofuel with Consideration of Hydrogen Production. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 13812-13830.	1.8	17
53	Over two-orders of magnitude enhancement of the photocatalytic hydrogen evolution activity of carbon nitride via mediator-free decoration with gold-organic microspheres. <i>Chemical Communications</i> , 2017, 53, 11814-11817.	2.2	35
54	Laser-induced hydrogen generation from graphite and coal. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 26277-26288.	3.8	15

#	ARTICLE	IF	CITATIONS
55	Graphitic carbon nitride (g-C ₃ N ₄)-based photocatalysts for solar hydrogen generation: recent advances and future development directions. <i>Journal of Materials Chemistry A</i> , 2017, 5, 23406-23433.	5.2	472
56	Natural Biowaste-Cocoon-Derived Granular Activated Carbon-Coated ZnO Nanorods: A Simple Route To Synthesizing a Core-Shell Structure and Its Highly Enhanced UV and Hydrogen Sensing Properties. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 39771-39780.	4.0	33
57	Optimal network design of hydrogen production by integrated utility and biogas supply networks. <i>Applied Energy</i> , 2017, 208, 195-209.	5.1	20
58	Phase Effect of Ni _x P _y Hybridized with g-C ₃ N ₄ for Photocatalytic Hydrogen Generation. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 30583-30590.	4.0	116
59	A review of hydrogen as a compression ignition engine fuel. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 24470-24486.	3.8	243
60	Recent advances and insights in dye-sensitized NiO photocathodes for photovoltaic devices. <i>Journal of Materials Chemistry A</i> , 2017, 5, 21077-21113.	5.2	90
61	Performance of electrochemical cell with various flow channels for Bunsen reaction in the sulfur-iodine hydrogen production process. <i>Energy Conversion and Management</i> , 2017, 151, 514-523.	4.4	14
62	Production, storage, fuel stations of hydrogen and its utilization in automotive applications-a review. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 24597-24611.	3.8	300
63	Techno-Economic Assessment of Utilizing Wind Energy for Hydrogen Production Through Electrolysis. , 2017, , .		4
64	Effect of operating parameters on hydrogen production by electrolysis of water. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 25550-25557.	3.8	124
65	Synthesis and characterization of PbS/ZnO thin film for photocatalytic hydrogen production. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2017, 347, 98-104.	2.0	44
66	Review on fermentative biohydrogen production from water hyacinth, wheat straw and rice straw with focus on recent perspectives. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 20955-20969.	3.8	79
67	Microalgal hydrogen production – A review. <i>Bioresource Technology</i> , 2017, 243, 1194-1206.	4.8	275
68	Energy hub: From a model to a concept – A review. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 80, 1512-1527.	8.2	331
69	Enhanced Biological Hydrogen Production from <i>Escherichia coli</i> with Surface Precipitated Cadmium Sulfide Nanoparticles. <i>Advanced Energy Materials</i> , 2017, 7, 1700611.	10.2	133
70	Evidence for hydrogenase-4 catalyzed biohydrogen production in <i>Escherichia coli</i> . <i>International Journal of Hydrogen Energy</i> , 2017, 42, 21697-21703.	3.8	26
71	Recent advances on Zeolite modification for direct alcohol fuel cells (DAFCs). <i>AIP Conference Proceedings</i> , 2017, , .	0.3	9
72	Graphite oxide and molybdenum disulfide composite for hydrogen evolution reaction. <i>Chemical Physics Letters</i> , 2017, 685, 451-456.	1.2	26

#	ARTICLE	IF	CITATIONS
73	Immobilized mixed-culture reactor (IMcR) for hydrogen and methane production from glucose. <i>Energy</i> , 2017, 139, 1188-1196.	4.5	20
74	A facile non-photocatalytic technique for hydrogen gas production by hydroelectric cell. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 30584-30590.	3.8	29
75	Biohydrogen production by dark fermentation of <i>Arundo donax</i> using a new methodology for selection of H ₂ -producing bacteria. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 30599-30612.	3.8	22
76	Simple adaptive incremental conductance MPPT algorithm using improved control model. <i>Journal of Renewable and Sustainable Energy</i> , 2017, 9, .	0.8	11
77	Optical properties determination of NiFe ₂ O ₄ nanoparticles and their photocatalytic evaluation towards hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 30242-30248.	3.8	34
78	Experimental evaluation of a power management system for a hybrid renewable energy system with hydrogen production. <i>Renewable Energy</i> , 2017, 113, 1086-1098.	4.3	24
79	A review on the characterization of hydrogen in hydrogen storage materials. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 79, 1122-1133.	8.2	89
80	The photoelectrocatalytic activity, long term stability and corrosion performance of NiMo deposited titanium oxide nano-tubes for hydrogen production in alkaline medium. <i>Applied Surface Science</i> , 2017, 423, 704-715.	3.1	14
81	A design methodology of stand-alone photovoltaic power systems for rural electrification. <i>Energy Conversion and Management</i> , 2017, 148, 1127-1141.	4.4	35
82	Energy transfer in hydrogen separation from syngas using pressure swing adsorption (PSA) process: a thermodynamic model. <i>International Journal of Energy Research</i> , 2017, 41, 448-458.	2.2	12
83	Impact of surface modifications on hydrogen uptake by Fe@f-MWCNTs and Cu@f-MWCNTs at non-cryogenic temperatures. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 953-959.	3.8	27
84	Heat transfer from molten salt droplets in various gases. <i>International Journal of Heat and Mass Transfer</i> , 2017, 105, 140-146.	2.5	12
85	Enhanced mechanism of the photo-thermochemical cycle based on effective Fe-doping TiO ₂ films and DFT calculations. <i>Applied Catalysis B: Environmental</i> , 2017, 204, 324-334.	10.8	75
86	Overview on recent developments in energy storage: Mechanical, electrochemical and hydrogen technologies. <i>Energy Conversion and Management</i> , 2017, 132, 372-387.	4.4	352
87	Ultra-High Sensitivity to Low Hydrogen Gas Concentration With Pd-Decorated IGZO Film. <i>IEEE Electron Device Letters</i> , 2017, 38, 1735-1738.	2.2	15
88	Viability and Impacts of Hydrogen Economy in Mobility- A Review. , 0, , .		0
89	Performance Evaluation of a Hydrogen-Based Clean Energy Hub with Electrolyzers as a Self-Regulating Demand Response Management Mechanism. <i>Energies</i> , 2017, 10, 1211.	1.6	8
90	Development of an Efficient Methanol Production Process for Direct CO ₂ Hydrogenation over a Cu/ZnO/Al ₂ O ₃ Catalyst. <i>Catalysts</i> , 2017, 7, 332.	1.6	42

#	ARTICLE	IF	CITATIONS
91	Optimization of a Bubbling Fluidized Bed Plant for Low-Temperature Gasification of Biomass. <i>Energies</i> , 2017, 10, 306.	1.6	28
92	Carbon-neutral energy cycles using alcohols. <i>Science and Technology of Advanced Materials</i> , 2018, 19, 142-152.	2.8	29
93	Electrodeposited amorphous Co-P-B ternary catalyst for hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2018, 6, 6282-6288.	5.2	83
94	Ir-Pd nanoalloys with enhanced surface-microstructure-sensitive catalytic activity for oxygen evolution reaction in acidic and alkaline media. <i>Science China Materials</i> , 2018, 61, 926-938.	3.5	45
95	Nanostructured semiconducting materials for efficient hydrogen generation. <i>Environmental Chemistry Letters</i> , 2018, 16, 765-796.	8.3	97
96	Reactive nitrogen: A perspective on its global impact and prospects for its sustainable production. <i>Sustainable Production and Consumption</i> , 2018, 15, 35-48.	5.7	21
97	Hydrogen production, storage, transportation and key challenges with applications: A review. <i>Energy Conversion and Management</i> , 2018, 165, 602-627.	4.4	957
98	Photo-Driven Hydrogen Evolution by an Artificial Hydrogenase Utilizing the Biotin-Streptavidin Technology. <i>Helvetica Chimica Acta</i> , 2018, 101, e1800036.	1.0	11
99	Biogas to high purity hydrogen by methane dry reforming in TZFBR+MB and exhaustion by Steam-Iron Process. Techno-economic assessment. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 11663-11675.	3.8	20
100	Efficient and stable HER electrocatalyst using Pt-nanoparticles@poly(3,4-ethylene dioxythiophene) modified sulfonated graphene nanocomposite. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 8323-8332.	3.8	17
101	Impacts of Energy Storage Technologies and Renewable Energy Sources on Energy Hub Systems. , 2018, , 23-52.		5
102	<i>In situ</i> determination of the complex permittivity of ultrathin H ₂ -infused palladium coatings for plasmonic fiber optic sensors in the near infrared. <i>Journal of Materials Chemistry C</i> , 2018, 6, 5161-5170.	2.7	19
103	Effect of nano-size of functionalized silica on overall performance of swelling-filling modified Nafion membrane for direct methanol fuel cell application. <i>Applied Energy</i> , 2018, 213, 408-414.	5.1	73
104	Utilisation of alkaline electrolysers in existing distribution networks to increase the amount of integrated wind capacity. <i>Journal of Energy Storage</i> , 2018, 16, 8-20.	3.9	19
105	Combined production of electricity and hydrogen from solar energy and its use in the wine sector. <i>Renewable Energy</i> , 2018, 122, 251-263.	4.3	39
106	An Electrochemical Method for Monitoring the Acidity of Water for Fuel Cell and Environmental Applications. <i>Energy Technology</i> , 2018, 6, 94-99.	1.8	4
107	A review on sustainable microalgae based biofuel and bioenergy production: Recent developments. <i>Journal of Cleaner Production</i> , 2018, 181, 42-59.	4.6	313
108	Accelerated Hydrogen Evolution Kinetics on NiFe-Layered Double Hydroxide Electrocatalysts by Tailoring Water Dissociation Active Sites. <i>Advanced Materials</i> , 2018, 30, 1706279.	11.1	601

#	ARTICLE	IF	CITATIONS
109	Optimum Preferential Oxidation Performance of CeO ₂ /CuO _x RGO Composites through Interfacial Regulation. ACS Applied Materials & Interfaces, 2018, 10, 7935-7945.	4.0	55
110	Bubbling fluidized bed gasification of short rotation Eucalyptus: Effect of harvesting age and bark. Biomass and Bioenergy, 2018, 110, 98-104.	2.9	13
111	Notable hydrogen production on La _x Ca _{1-x} CoO ₃ perovskites via two-step thermochemical water splitting. Journal of Materials Science, 2018, 53, 6796-6806.	1.7	30
112	Optical cascaded Fabry-Perot interferometer hydrogen sensor based on vernier effect. Optics Communications, 2018, 414, 166-171.	1.0	78
113	Nitrogen-doped carbon active sites boost the ultra-stable hydrogen evolution reaction on defect-rich MoS ₂ nanosheets. International Journal of Hydrogen Energy, 2018, 43, 2026-2033.	3.8	35
114	A comprehensive review on two-stage integrative schemes for the valorization of dark fermentative effluents. Critical Reviews in Biotechnology, 2018, 38, 868-882.	5.1	48
115	Potentiality of a biogas membrane reformer for decentralized hydrogen production. Chemical Engineering and Processing: Process Intensification, 2018, 129, 131-141.	1.8	49
116	Techno-economic analysis and life cycle assessment of hydrogen production from different biomass gasification processes. International Journal of Hydrogen Energy, 2018, 43, 9514-9528.	3.8	184
117	Liquid metal activated aluminum-water reaction for direct hydrogen generation at room temperature. Renewable and Sustainable Energy Reviews, 2018, 92, 17-37.	8.2	88
118	Studying of electrochemical discharging and kinetic properties of Ni-TiF ₃ -CeMg ₁₂ composite materials with nanocrystalline and amorphous structure. Applied Surface Science, 2018, 447, 15-21.	3.1	2
119	Computational intelligence approach for modeling hydrogen production: a review. Engineering Applications of Computational Fluid Mechanics, 2018, 12, 438-458.	1.5	154
120	Preparation of Porous LSM/YSZ Composite with Varying Grain Size of YSZ Precursor Using Solid State Reaction Method. Materials Science Forum, 2018, 917, 93-97.	0.3	3
121	Highly-ordered silicon nanowire arrays for photoelectrochemical hydrogen evolution: an investigation on the effect of wire diameter, length and inter-wire spacing. Sustainable Energy and Fuels, 2018, 2, 978-982.	2.5	31
122	Enhanced photocatalytic hydrogen production of AgMO ₃ (M = Ta, Nb, V) perovskite materials using CdS and NiO as co-catalysts. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 358, 167-176.	2.0	18
123	Universal Descriptor for Large-Scale Screening of High-Performance MXene-Based Materials for Energy Storage and Conversion. Chemistry of Materials, 2018, 30, 2687-2693.	3.2	71
124	Stabilization of Pt at the inner wall of hollow spherical SiO ₂ generated from Pt/hollow spherical SiC for sulfuric acid decomposition. Applied Catalysis B: Environmental, 2018, 231, 151-160.	10.8	27
125	Texture dependence of hydrogen diffusion in nanocrystalline nickel by atomistic simulations. International Journal of Hydrogen Energy, 2018, 43, 7117-7127.	3.8	16
126	Single-Stage Pressure Swing Adsorption for Producing Fuel Cell Grade Hydrogen. Industrial & Engineering Chemistry Research, 2018, 57, 5106-5118.	1.8	42

#	ARTICLE	IF	CITATIONS
127	A transition metal oxysulfide cathode for the proton exchange membrane water electrolyzer. Applied Catalysis B: Environmental, 2018, 232, 93-100.	10.8	40
128	Co _{0.8} Cu _{0.2} MoO ₄ Microspheres Composed of Nanoplatelets as a Robust Catalyst for the Hydrolysis of Ammonia Borane. ACS Sustainable Chemistry and Engineering, 2018, 6, 5843-5851.	3.2	47
129	Life cycle greenhouse gas assessment of hydrogen production via chemical looping combustion thermally coupled steam reforming. Journal of Cleaner Production, 2018, 179, 335-346.	4.6	57
130	Progress of nuclear hydrogen production through the iodine-sulfur process in China. Renewable and Sustainable Energy Reviews, 2018, 81, 1802-1812.	8.2	87
131	Tech-integrated paradigm based approaches towards carbon-free hydrogen production. Renewable and Sustainable Energy Reviews, 2018, 82, 4279-4295.	8.2	12
132	Cyclic thermal performance analysis of a traditional Single-Layered and of a novel Multi-Layered Packed-Bed molten salt Thermocline Tank. Renewable Energy, 2018, 118, 565-578.	4.3	63
133	Metabolic engineering of microorganisms for biofuel production. Renewable and Sustainable Energy Reviews, 2018, 82, 3863-3885.	8.2	124
134	Single-step hydrothermal synthesis of wrinkled graphene wrapped TiO ₂ nanotubes for photocatalytic hydrogen production and supercapacitor applications. Materials Research Bulletin, 2018, 98, 314-321.	2.7	57
135	Techno-economic and environmental assessment of renewable jet fuel production in integrated Brazilian sugarcane biorefineries. Applied Energy, 2018, 209, 290-305.	5.1	120
136	CoO _x (OH) _y /C nanocomposites <i>in situ</i> derived from Na ₄ Co ₃ (PO ₄) ₂ P ₂ O ₇ as sustainable electrocatalysts for water splitting. Dalton Transactions, 2018, 47, 15703-15713.	1.6	24
137	Hydrogen evolution from silicon nanowire surfaces. RSC Advances, 2018, 8, 41657-41662.	1.7	3
138	Hydrogen is essential for sustainability. Current Opinion in Electrochemistry, 2018, 12, 166-181.	2.5	99
139	Hydrogen Production from Light Hydrocarbons. , 2018, , .		6
140	Green Energy based Thermochemical and Photochemical Hydrogen Production. International Journal of Electrochemical Science, 2018, , 6484-6502.	0.5	10
141	A technical and economical assessment of hydrogen production potential from solar energy in Morocco. International Journal of Hydrogen Energy, 2018, 43, 22777-22796.	3.8	103
142	Dissolution Stability: The Major Challenge in the Regenerative Fuel Cells Bifunctional Catalysis. Journal of the Electrochemical Society, 2018, 165, F1376-F1384.	1.3	33
143	Ethanol Processor Design for Hydrogen Production. Kinetic Analysis and Process Integration. Industrial & Engineering Chemistry Research, 2018, 57, 13615-13626.	1.8	5
144	Multiple-doped barium cerate proton-conducting electrolytes for chemical-energy cogeneration in solid oxide fuel cells. International Journal of Hydrogen Energy, 2018, 43, 19704-19710.	3.8	14

#	ARTICLE	IF	CITATIONS
145	Hydrogen purification with CO ₂ -selective facilitated transport membranes. <i>Current Opinion in Chemical Engineering</i> , 2018, 21, 96-102.	3.8	16
146	Photocatalytic Solar Light H ₂ Production by Aqueous Glucose Reforming. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 4522-4532.	1.0	34
147	Contribution of upcycling surplus hydrogen to design a sustainable supply chain: The case study of Northern Spain. <i>Applied Energy</i> , 2018, 231, 777-787.	5.1	44
148	Fabrication of Pt-doped carbon aerogels for hydrogen storage by radiation method. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 19174-19181.	3.8	13
150	Salt domes in Poland – Potential sites for hydrogen storage in caverns. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 21414-21427.	3.8	103
151	Development of high quantum efficiency CdS/ZnS core/shell structured photocatalyst for the enhanced solar hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 22315-22328.	3.8	42
152	Fabricating a novel three component nano-electrocatalyst, Co _{5.57} Fe _{1.62} Ni _{1.81} S ₈ /rGO, and its application toward electrochemical hydrogen evolution reaction. <i>Chemical Physics Letters</i> , 2018, 713, 247-252.	1.2	0
153	Incinerator bottom ash derived from municipal solid waste as a potential catalytic support for biomass tar reforming. <i>Waste Management</i> , 2018, 82, 249-257.	3.7	44
154	Electro-analytical performance of bifunctional electrocatalyst materials in unitized regenerative fuel cell system. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18169-18184.	3.8	35
155	Hydrogen Supply Chain Design: Key Technological Components and Sustainable Assessment. , 2018, , 37-79.		4
156	Assessment of Selected Hydrogen Supply Chains – Factors Determining the Overall GHG Emissions. , 2018, , 81-109.		10
157	Cashew apple bagasse as new feedstock for the hydrogen production using dark fermentation process. <i>Journal of Biotechnology</i> , 2018, 286, 71-78.	1.9	64
158	Understanding the Role of <i>Escherichia coli</i> Hydrogenases and Formate Dehydrogenases in the F _O F ₁ -ATPase Activity during the Mixed Acid Fermentation of Mixture of Carbon Sources. <i>IUBMB Life</i> , 2018, 70, 1040-1047.	1.5	18
159	Sustainability analysis of different hydrogen production options using hesitant fuzzy AHP. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 18059-18076.	3.8	126
160	Effect of the triazole ring in zinc porphyrin-fullerene dyads on the charge transfer processes in NiO-based devices. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 24477-24489.	1.3	13
161	Theoretical evaluation of Pd Ag membrane reactor performance during biomass steam gasification for hydrogen production using CFD method. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 11719-11730.	3.8	24
162	Prolongation of H ₂ production during mixed carbon sources fermentation in <i>E. coli</i> batch cultures: New findings and role of different hydrogenases. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 8739-8746.	3.8	15
163	Solar light active plasmonic Au@TiO ₂ nanocomposite with superior photocatalytic performance for H ₂ production and pollutant degradation. <i>New Journal of Chemistry</i> , 2018, 42, 10958-10968.	1.4	67

#	ARTICLE	IF	CITATIONS
164	Hydrogen production from biomass using dark fermentation. Renewable and Sustainable Energy Reviews, 2018, 91, 665-694.	8.2	398
165	Room temperature hydrogen absorption by Mg and Mg TiFe nanocomposites processed by high-energy ball milling. International Journal of Hydrogen Energy, 2018, 43, 12251-12259.	3.8	32
166	Bimetallic catalysts for green methanol production via CO ₂ and renewable hydrogen: a mini-review and prospects. Catalysis Science and Technology, 2018, 8, 3450-3464.	2.1	104
167	Insight into the structural, elastic, electronic and thermal properties of YMgX ₄ (X = Co, Ti) ETQq1 1 0.784314 rgBT /Over	0.8	9
168	Hierarchical morphology and hydrogen sensing properties of N ₂ -based nanodiamond materials produced through CH ₄ /H ₂ /Ar plasma treatment. Applied Surface Science, 2018, 457, 367-375.	3.1	13
169	A novel cobalt ion implanted pyridylporphyrin/graphene oxide assembly for enhanced photocatalytic hydrogen production. Journal of Porphyrins and Phthalocyanines, 2018, 22, 877-885.	0.4	5
170	Cu/Ni nanoparticles supported on TiO ₂ (B) nanotubes as hydrogen generation photocatalysts via hydrolysis of ammonia borane. Inorganic Chemistry Frontiers, 2018, 5, 2038-2044.	3.0	39
171	Thermally reduced graphite oxide and molybdenum disulfide composite for enhanced hydrogen evolution reaction. Chemical Physics Letters, 2018, 706, 266-272.	1.2	5
172	CO-dependent hydrogen production by the facultative anaerobe Parageobacillus thermoglucosidasius. Microbial Cell Factories, 2018, 17, 108.	1.9	37
173	Promotion Effect of SiO ₂ on the Catalytic Performance of Ni/CF for Biomass Derived Gas Reforming. Industrial & Engineering Chemistry Research, 2018, 57, 10851-10858.	1.8	8
174	Recent Progresses in Electrocatalysts for Water Electrolysis. Electrochemical Energy Reviews, 2018, 1, 483-530.	13.1	285
175	Nano-size IrOx catalyst of high activity and stability in PEM water electrolyzer with ultra-low iridium loading. Applied Catalysis B: Environmental, 2018, 239, 133-146.	10.8	131
176	Green Hydrogen Production from Raw Biogas: A Techno-Economic Investigation of Conventional Processes Using Pressure Swing Adsorption Unit. Processes, 2018, 6, 19.	1.3	71
177	Hydrogen Supply Chains for Mobility – Environmental and Economic Assessment. Sustainability, 2018, 10, 1699.	1.6	66
178	Non-Noble Metal Oxides and their Application as Bifunctional Catalyst in Reversible Fuel Cells and Rechargeable Air Batteries. ChemCatChem, 2018, 10, 4162-4171.	1.8	35
179	Recent advances on biogranules formation in dark hydrogen fermentation system: Mechanism of formation and microbial characteristics. Bioresource Technology, 2018, 268, 787-796.	4.8	42
180	Performance improvement and energy consumption reduction in refrigeration systems using phase change material (PCM). Applied Thermal Engineering, 2018, 142, 723-735.	3.0	92
181	Key Role of Lanthanum Oxide: Promotional Effects of Lanthanum in NiLaO _y /NaCl for Hydrogen Production from Ethyl Iodate and Water. Small, 2018, 14, e1800927.	5.2	12

#	ARTICLE	IF	CITATIONS
182	Hybrid solar flameless combustion system: Modeling and thermodynamic analysis. <i>Energy Conversion and Management</i> , 2018, 166, 146-155.	4.4	11
183	Fermentative hydrogen production using various biomass-based materials as feedstock. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 92, 284-306.	8.2	222
184	H ₂ reduction of Gd- and Sm-doped ceria compared to pure CeO ₂ at high temperatures: effect on structure, oxygen nonstoichiometry, hydrogen solubility and hydroxyl chemistry. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 22099-22113.	1.3	12
185	Effect of Bismuth on hydrogen storage properties of melt-spun LaNi _{4.7-x} Al _{0.3} Bix (x = 0.0, 0.1, 0.2, 0.3) ribbons. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 20243-20251.	3.8	12
186	Synthesis of 5-hydroxymethyl furfural from cellulose via a two-step process in polar aprotic solvent. <i>Carbohydrate Polymers</i> , 2018, 200, 529-535.	5.1	24
187	Hydroxyl aluminium silicate clay for biohydrogen purification by pressure swing adsorption: Physical properties, adsorption isotherm, multicomponent breakthrough curve modelling, and cycle simulation. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 16573-16588.	3.8	24
188	Review of Energy Storage System Technologies in Microgrid Applications: Issues and Challenges. <i>IEEE Access</i> , 2018, 6, 35143-35164.	2.6	434
189	Cp*Co^{III}-Catalyzed Efficient Dehydrogenation of Secondary Alcohols. <i>Chemistry - an Asian Journal</i> , 2018, 13, 2445-2448.	1.7	24
190	Flexible and Free-standing PtNi ₂ /MoS ₂ /Reduced Graphene Oxide Composite Paper: A High-performance Rolled Paper Catalyst for Hydrogen Evolution Reaction. <i>ChemistrySelect</i> , 2018, 3, 5941-5949.	0.7	25
191	Recent Development of Metallic (1T) Phase of Molybdenum Disulfide for Energy Conversion and Storage. <i>Advanced Energy Materials</i> , 2018, 8, 1703482.	10.2	317
192	Performance of water gas shift reaction catalysts: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2018, 93, 549-565.	8.2	240
193	Effects of supports on reduction activity and carbon deposition of iron oxide for methane chemical looping hydrogen generation. <i>Applied Energy</i> , 2018, 225, 912-921.	5.1	43
194	Cluster Beam Deposition of Ultrafine Cobalt and Ruthenium Clusters for Efficient and Stable Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2018, 1, 3013-3018.	2.5	29
195	The environmental biorefinery: state-of-the-art on the production of hydrogen and value-added biomolecules in mixed-culture fermentation. <i>Green Chemistry</i> , 2018, 20, 3159-3179.	4.6	109
196	Hydrogen-rich syngas production via steam reforming of palm oil mill effluent (POME) – A thermodynamics analysis. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 20711-20724.	3.8	39
197	A comprehensive review of anaerobic digestion of organic solid wastes in relation to microbial community and enhancement process. <i>Journal of the Science of Food and Agriculture</i> , 2019, 99, 507-516.	1.7	24
198	Production and purification of hydrogen by biogas combined reforming and steam-iron process. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 19244-19254.	3.8	17
199	Electrodeposited Rhodium Phosphide with High Activity for Hydrogen Evolution Reaction in Acidic Medium. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 14041-14050.	3.2	29

#	ARTICLE	IF	CITATIONS
200	Electrocatalytic Hydrogen Evolution in Neutral pH Solutions: Dual-Phase Synergy. ACS Catalysis, 2019, 9, 8712-8718.	5.5	103
201	Uniformly Decorated Molybdenum Carbide/Nitride Nanostructures on Biomass Templates for Hydrogen Evolution Reaction Applications. ACS Omega, 2019, 4, 14155-14161.	1.6	21
202	Recent advancement and strategy on bio-hydrogen production from photosynthetic microalgae. Bioresource Technology, 2019, 292, 121972.	4.8	127
203	Model-based control for a demand-driven biogas production to cover residual load rises. Bioprocess and Biosystems Engineering, 2019, 42, 1829-1841.	1.7	5
204	Phase-structural and morphological features, dehydrogenation/re-hydrogenation performance and hydrolysis of nanocomposites prepared by ball milling of MgH ₂ with germanium. International Journal of Hydrogen Energy, 2019, 44, 23160-23171.	3.8	10
205	Utility of Squaraine Dyes for Dye-Sensitized Photocatalysis on Water or Carbon Dioxide Reduction. ACS Omega, 2019, 4, 14272-14283.	1.6	25
206	Vanadium doped few-layer ultrathin MoS ₂ nanosheets on reduced graphene oxide for high-performance hydrogen evolution reaction. RSC Advances, 2019, 9, 22232-22239.	1.7	41
207	Direct Reduced Iron: Most Efficient Technologies for Greenhouse Emissions Abatement. , 2019, , 419-484.		10
208	Promoting water dissociation performance by borinic acid for the strong-acid/base-free hydrogen evolution reaction. Chemical Communications, 2019, 55, 9821-9824.	2.2	4
209	Immobilization of Co, Mn, Ni and Fe oxide co-catalysts on TiO ₂ for photocatalytic water splitting reactions. Journal of Materials Chemistry A, 2019, 7, 18568-18579.	5.2	66
210	Emerging Technologies for Biofuels Production. , 2019, , 45-76.		3
211	Biohydrogen Production From Bio-Oil via Hydrothermal Liquefaction. , 2019, , 715-732.		2
212	Potential of hydrogen production from sugarcane juice by Ethanoligenens harbinense Yuan-3. Journal of Cleaner Production, 2019, 237, 117552.	4.6	18
213	Electricity generation prospective of hydrogen derived from biogas using food waste in south-western Nigeria. Biomass and Bioenergy, 2019, 127, 105291.	2.9	51
214	Environmental Sustainability and Education for Waste Management. Education for Sustainability, 2019, , .	0.2	6
215	The potential role of green hydrogen production in the South Africa energy mix. Journal of Renewable and Sustainable Energy, 2019, 11, 044301.	0.8	26
216	Experimental Study and Thermodynamic Analysis of Hydrogen Production through a Two-Step Chemical Regenerative Coal Gasification. Applied Sciences (Switzerland), 2019, 9, 3035.	1.3	9
217	Utilizing Different Forms of Waste Sludge in Eco-construction Material Production. Education for Sustainability, 2019, , 271-303.	0.2	1

#	ARTICLE	IF	CITATIONS
218	Feasibility and sustainability analyses of carbon dioxide \rightarrow hydrogen separation via de-sublimation process in comparison with other processes. International Journal of Hydrogen Energy, 2019, 44, 23120-23134.	3.8	20
219	A self-powered electrolytic process for glucose to hydrogen conversion. Communications Chemistry, 2019, 2, .	2.0	21
220	Recent developments of hydrogen production from sewage sludge by biological and thermochemical process. International Journal of Hydrogen Energy, 2019, 44, 19676-19697.	3.8	73
221	Highly photoactive TiO ₂ microspheres for photocatalytic production of hydrogen. International Journal of Hydrogen Energy, 2019, 44, 24653-24666.	3.8	18
222	Power-to-X and power-to-power routes. , 2019, , 529-557.		18
223	Catalytic supercritical water gasification of oil palm frond biomass using nanosized MgO doped Zn catalysts. Journal of Supercritical Fluids, 2019, 154, 104610.	1.6	9
224	Analysis of hydrogen storage performance of metal hydride reactor with phase change materials. International Journal of Hydrogen Energy, 2019, 44, 28893-28908.	3.8	66
225	Electrochemical transformation method for the preparation of novel 3D hybrid porous CoOOH/Co(OH) ₂ composites with excellent pseudocapacitance performance. Journal of Power Sources, 2019, 443, 227278.	4.0	27
226	Amorphous CoFeP/NC hybrids as highly efficient electrocatalysts for water oxidation. International Journal of Hydrogen Energy, 2019, 44, 30196-30207.	3.8	30
227	Enhancement of syngas for H ₂ production via catalytic pyrolysis of orange peel using CO ₂ and bauxite residue. Applied Energy, 2019, 254, 113803.	5.1	20
228	Numerical simulation and exergoeconomic analysis of a high temperature polymer exchange membrane electrolyzer. International Journal of Hydrogen Energy, 2019, 44, 31731-31744.	3.8	27
229	Implementation of energy sustainability using hybrid power systems, a case study. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2019, , 1-14.	1.2	11
230	Formulation of a Low-cost Medium for Improved Cost-effectiveness of Hydrogen Production by Thermococcus onnurineus NA1. Biotechnology and Bioprocess Engineering, 2019, 24, 833-838.	1.4	2
231	Changes in microbial community structure during dark fermentative hydrogen production. International Journal of Hydrogen Energy, 2019, 44, 25542-25550.	3.8	75
232	Mixed Logic Dynamic Models for MPC Control of Wind Farm Hydrogen-Based Storage Systems. Inventions, 2019, 4, 57.	1.3	15
233	Investigation of solar energy utilization for production of hydrogen and sustainable chemical fertilizer: A case study. International Journal of Energy Research, 2019, 43, 8314.	2.2	13
234	Phosphoric Acid Doped Polybenzimidazole and Sulfonated Polyether Ether Ketone Composite Membrane for Hydrogen Production in High-Temperature Copper Chloride Electrolysis. IOP Conference Series: Earth and Environmental Science, 2019, 268, 012057.	0.2	0
235	A roadmap for renewable C ₂ \rightarrow C ₃ glycols production: a process engineering approach. Green Chemistry, 2019, 21, 5168-5194.	4.6	31

#	ARTICLE	IF	CITATIONS
236	Modeling of a Hydrogen Storage Wind Plant for Model Predictive Control Management Strategies. , 2019, , .		3
237	Evaluating renewable energy sources for implementing the hydrogen economy in Pakistan: a two-stage fuzzy MCDM approach. Environmental Science and Pollution Research, 2019, 26, 33202-33215.	2.7	54
238	Renewable electrolytic hydrogen potential in Algeria. International Journal of Hydrogen Energy, 2019, 44, 26863-26873.	3.8	8
239	Recent progress in thermochemical techniques to produce hydrogen gas from biomass: A state of the art review. International Journal of Hydrogen Energy, 2019, 44, 25384-25415.	3.8	170
240	Green hydrogen production by <i>Rhodobacter sphaeroides</i> . Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2023, 45, 2862-2880.	1.2	10
241	Catalytic Effect of Facile Synthesized TiH _{1.971} Nanoparticles on the Hydrogen Storage Properties of MgH ₂ . Nanomaterials, 2019, 9, 1370.	1.9	11
242	Sustainable Italian Cities: The Added Value of Biomethane from Organic Waste. Applied Sciences (Switzerland), 2019, 9, 2221.	1.3	36
243	Optimizing wind farm layout by addressing energy-variance trade-off: A single-objective optimization approach. Energy, 2019, 189, 116149.	4.5	14
244	Electrochemical investigation of novel reference electrode Ni/Ni(OH) ₂ , in comparison with silver and platinum inert quasi-reference electrodes for electrolysis in eutectic molten hydroxide. International Journal of Hydrogen Energy, 2019, 44, 27224-27236.	3.8	70
245	Three-dimensional electrochemical Bunsen reaction characteristics in the sulfur-iodine water splitting cycle for hydrogen production. International Journal of Hydrogen Energy, 2019, 44, 22841-22850.	3.8	7
246	Fe _x Ni _{9-x} S ₈ (<i>x</i> = 3-6) as potential photocatalysts for solar-driven hydrogen production?. Faraday Discussions, 2019, 215, 216-226.	1.6	11
247	Highly Efficient and Selective Co@ZIF-8 Nanocatalyst for Hydrogen Release from Sodium Borohydride Hydrolysis. ChemCatChem, 2019, 11, 1643-1649.	1.8	61
248	Engineering black phosphorus to porous g-C ₃ N ₄ -metal-organic framework membrane: a platform for highly boosting photocatalytic performance. Journal of Materials Chemistry A, 2019, 7, 4408-4414.	5.2	79
249	Niobium incorporated WO ₃ nanotriangles: Band edge insights and improved photoelectrochemical water splitting activity. Ceramics International, 2019, 45, 8157-8165.	2.3	22
250	Review and evaluation of hydrogen production options for better environment. Journal of Cleaner Production, 2019, 218, 835-849.	4.6	570
251	Amorphous phosphorus-doped MoS ₂ catalyst for efficient hydrogen evolution reaction. Nanotechnology, 2019, 30, 205401.	1.3	25
252	Recent Advances in Electrochemical Hydrogen Production from Water Assisted by Alternative Oxidation Reactions. ChemElectroChem, 2019, 6, 3214-3226.	1.7	187
253	FeS ₂ @C Core-Shell Nanochains as Efficient Electrocatalysts for Hydrogen Evolution Reaction. ACS Applied Nano Materials, 2019, 2, 3889-3896.	2.4	28

#	ARTICLE	IF	CITATIONS
254	Efficient Light-Driven Hydrogen Evolution Using a Thiosemicarbazone-Nickel (II) Complex. <i>Frontiers in Chemistry</i> , 2019, 7, 405.	1.8	18
255	Hydrogen desorption/absorption properties of the extensively cold rolled $\hat{1}^2$ Ti \hat{a} €“40Nb alloy. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 20133-20144.	3.8	7
256	Electrodeposited tungsten-rich Ni-W, Co-W and Fe-W cathodes for efficient hydrogen evolution in alkaline medium. <i>Electrochimica Acta</i> , 2019, 318, 597-606.	2.6	26
257	Hydrogen evolution reaction efficiency of carbon nanohorn incorporating molybdenum sulfide and polydopamine/palladium nanoparticles. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019, 102, 378-386.	2.7	16
258	Facile fabrication of mesoporous biochar/ZnFe ₂ O ₄ composite with enhanced visible-light photocatalytic hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 19967-19977.	3.8	39
259	Nitrogen-self doped activated carbon nanosheets derived from peanut shells for enhanced hydrogen evolution reaction. <i>Applied Surface Science</i> , 2019, 489, 725-733.	3.1	51
260	Understanding water-splitting thermochemical cycles based on nickel and cobalt ferrites for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 17578-17585.	3.8	23
261	Novel configuration of supercritical water gasification and chemical looping for highly-efficient hydrogen production from microalgae. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 112, 369-381.	8.2	73
262	Exploring the catalytic activity of MXenes Mn+1CnO ₂ for hydrogen evolution. <i>Journal of Materials Science</i> , 2019, 54, 11378-11389.	1.7	14
263	Alternative marine fuels: Prospects based on multi-criteria decision analysis involving Swedish stakeholders. <i>Biomass and Bioenergy</i> , 2019, 126, 159-173.	2.9	127
264	Modelling of a hydrogen thermally driven compressor based on cyclic adsorption-desorption on activated carbon. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 16811-16823.	3.8	15
265	A comprehensive review on electricity generation and GHG emission reduction potentials through anaerobic digestion of agricultural and livestock/slaughterhouse wastes in Iran. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 111, 571-594.	8.2	89
266	Electrode material studies and cell voltage characteristics of the in situ water electrolysis performed in a pH-neutral electrolyte in bioelectrochemical systems. <i>Heliyon</i> , 2019, 5, e01690.	1.4	19
267	Techno-economic analysis of chemically catalysed lignocellulose biorefineries at a typical sugar mill: Sorbitol or glucaric acid and electricity co-production. <i>Bioresource Technology</i> , 2019, 289, 121635.	4.8	43
268	Controllable fabrication of uniform ruthenium phosphide nanocrystals for the hydrogen evolution reaction. <i>Chemical Communications</i> , 2019, 55, 7828-7831.	2.2	47
269	Effects of size and autoclavation of fruit and vegetable wastes on biohydrogen production by dark dry anaerobic fermentation under mesophilic condition. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 17767-17780.	3.8	24
270	Hydrogen Fuel Cell Vehicles; Current Status and Future Prospect. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2296.	1.3	367
271	Template-free electrodeposition of SnS nanotubes and their photoelectrochemical properties. <i>Materials Letters</i> , 2019, 250, 186-188.	1.3	3

#	ARTICLE	IF	CITATIONS
272	A robust solid oxide electrolyzer for highly efficient electrochemical reforming of methane and steam. <i>Journal of Materials Chemistry A</i> , 2019, 7, 13550-13558.	5.2	58
273	Analysis of oxygen evolving catalyst coated membranes with different current collectors using a new modified rotating disk electrode technique. <i>Electrochimica Acta</i> , 2019, 317, 722-736.	2.6	30
274	Operational durability of three-dimensional Ni-Fe layered double hydroxide electrocatalyst for water oxidation. <i>Electrochimica Acta</i> , 2019, 315, 94-101.	2.6	43
275	Sorption Enhanced Water Gas Shift for H ₂ production using sour gases as feedstock. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 16132-16143.	3.8	13
276	Numerical investigations for a solid oxide electrolyte cell stack. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 20997-21009.	3.8	12
277	Oxygen-Vacancy-Tunable Electrochemical Properties of Electrodeposited Molybdenum Oxide Films. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 20378-20385.	4.0	82
278	Proton Exchange Membrane Water Electrolysis as a Promising Technology for Hydrogen Production and Energy Storage. , 0, , .		6
279	Control strategy of electrolyzer in a wind-hydrogen system considering the constraints of switching times. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 25104-25111.	3.8	59
280	Rapid Fabrication of Ni/NiO@CoFe Layered Double Hydroxide Hierarchical Nanostructures by Femtosecond Laser Ablation and Electrodeposition for Efficient Overall Water Splitting. <i>ChemSusChem</i> , 2019, 12, 2773-2779.	3.6	29
281	Interface engineering of ultrananocrystalline diamond/MoS ₂ -ZnO heterostructures and its highly enhanced hydrogen gas sensing properties. <i>Sensors and Actuators B: Chemical</i> , 2019, 292, 70-79.	4.0	48
282	Anaerobic Thermophilic Mixed Culture Fermentation Processes. , 2019, , 437-460.		0
283	Thermodynamic and Technical Issues of Hydrogen and Methane-Hydrogen Mixtures Pipeline Transmission. <i>Energies</i> , 2019, 12, 569.	1.6	51
284	Advances in alkaline water electrolyzers: A review. <i>Journal of Energy Storage</i> , 2019, 23, 392-403.	3.9	356
285	Hydrogen promotion by Co/SiO ₂ @HZSM-5 core-shell catalyst for syngas from plastic waste gasification: The combination of functional materials. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 13480-13489.	3.8	20
286	Three-Dimensional Dendritic Cu@Co@P Electrode by One-Step Electrodeposition on a Hydrogen Bubble Template for Hydrogen Evolution Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 10734-10741.	3.2	100
287	Energetic and economic analysis of a stand alone photovoltaic system with hydrogen storage. <i>Renewable Energy</i> , 2019, 142, 316-329.	4.3	60
288	High loading nanoconfinement of V-decorated Mg with 1 nm carbon shells: hydrogen storage properties and catalytic mechanism. <i>Nanoscale</i> , 2019, 11, 10045-10055.	2.8	33
289	Efficient Cu@Co Dendrimer-Supported Synergistic Bimetallic Nanocatalysis for Hydrogen Evolution by Sodium Borohydride Hydrolysis. <i>ChemCatChem</i> , 2019, 11, 2341-2349.	1.8	26

#	ARTICLE	IF	CITATIONS
290	Preparation and characterization of active and cost-effective nickel/platinum electrocatalysts for hydrogen evolution electrocatalysis. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 8079-8088.	3.8	13
291	Impacts of short-term temperature fluctuations on biohydrogen production and resilience of thermophilic microbial communities. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 8028-8037.	3.8	8
292	Biodiesel synthesis from fish waste via thermally-induced transesterification using clay as porous material. <i>Journal of Hazardous Materials</i> , 2019, 371, 27-32.	6.5	34
293	Ir-Au Bimetallic Nanoparticle Modified Silicon Nanowires with Ultralow Content of Ir for Hydrogen Evolution Reaction. <i>ChemCatChem</i> , 2019, 11, 2126-2130.	1.8	15
294	Facile and Large-Scale Fabrication of Sub-30-nm PtNi Nanoparticles Supported on Porous Carbon Sheet: A Bifunctional Material for the Hydrogen Evolution Reaction and Hydrogenation. <i>Chemistry - A European Journal</i> , 2019, 25, 7191-7200.	1.7	18
295	The Prospect of Hydrogen Storage Using Liquid Organic Hydrogen Carriers. <i>Energy & Fuels</i> , 2019, 33, 2778-2796.	2.5	328
296	The shape-controlled synthesis of gallium-palladium (GaPd ₂) nanomaterials as high-performance electrocatalysts for the hydrogen evolution reaction. <i>Nanoscale</i> , 2019, 11, 8518-8527.	2.8	10
297	Atmospheric-pressure dielectric barrier discharge cold plasma for synthesizing high performance Pd/C formic acid dehydrogenation catalyst. <i>Catalysis Today</i> , 2019, 337, 201-207.	2.2	27
298	Design and Simulation of a Palladium-Aluminum Nanostructure-Based Hydrogen Sensor With Improved Figure of Merit. <i>IEEE Sensors Journal</i> , 2019, 19, 6112-6118.	2.4	9
299	Hydropower Dams, Environment and Politics. <i>Journal of International Affairs</i> , 2019, 2, 1-18.	0.1	0
300	Algal cultivation for biofuel production. , 2019, , 383-403.		8
301	An efficient stochastic programming for optimal allocation of combined heat and power systems for commercial buildings using. <i>Thermal Science and Engineering Progress</i> , 2019, 11, 133-141.	1.3	9
302	Review on hydrogen storage materials and methods from an electrochemical viewpoint. <i>Journal of Energy Storage</i> , 2019, 23, 234-249.	3.9	178
303	The influence of surface treatment and activation of thin film composite membranes with plasma discharge and determination of their physicochemical properties. <i>Separation and Purification Technology</i> , 2019, 220, 52-60.	3.9	10
304	Hydrogen-based self-sustaining integrated renewable electricity network (HySIREN) using a supply-demand forecasting model and deep-learning algorithms. <i>Energy Conversion and Management</i> , 2019, 185, 353-367.	4.4	52
305	Economics of converting renewable power to hydrogen. <i>Nature Energy</i> , 2019, 4, 216-222.	19.8	684
306	Performance assessment study of photo-electro-chemical water-splitting reactor designs for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 9237-9247.	3.8	32
307	Effects of chemical treatments on the bioethanol yield and composition of <i>Isoperlinia doka</i> waste. <i>SN Applied Sciences</i> , 2019, 1, 1.	1.5	2

#	ARTICLE	IF	CITATIONS
308	Hydrogen generation by steam reforming of tar model compounds using lanthanum modified Ni/sepiolite catalysts. <i>Energy Conversion and Management</i> , 2019, 184, 315-326.	4.4	76
309	Hydrogen generation in a pressurized photobioreactor: Unexpected enhancement of biohydrogen production by the phototrophic bacterium <i>Rhodobacter capsulatus</i> . <i>Applied Energy</i> , 2019, 239, 635-643.	5.1	18
310	Recent Trends in Nanomaterials for Sustainable Energy. <i>Environmental Chemistry for A Sustainable World</i> , 2019, , 1-20.	0.3	1
311	Hydrogen production from phototrophic microorganisms: Reality and perspectives. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 5799-5811.	3.8	176
312	Recent developments of strontium titanate for photocatalytic water splitting application. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 14316-14340.	3.8	89
313	Simulation study on the microscopic characteristics of electrochemical Bunsen reaction in the sulfur-iodine cycle for renewable hydrogen production. <i>Applied Thermal Engineering</i> , 2019, 152, 437-444.	3.0	14
314	“Traditional” Sol-Gel Chemistry as a Powerful Tool for the Preparation of Supported Metal and Metal Oxide Catalysts. <i>Materials</i> , 2019, 12, 668.	1.3	213
315	Electrochemical water oxidation by cobalt-Prussian blue coordination polymer and theoretical studies of the electronic structure of the active species. <i>Dalton Transactions</i> , 2019, 48, 4811-4822.	1.6	30
316	A perspective on galactose-based fermentative hydrogen production from macroalgal biomass: Trends and opportunities. <i>Bioresource Technology</i> , 2019, 280, 447-458.	4.8	36
317	EFFECT OF NaOH-PRETREATED-CORN STOVER AND DAIRY MANURE ON BIOGAS PRODUCTION IN SOLID-STATE ANAEROBIC CO-DIGESTION. , 2019, , .		0
319	A Novel Liquid H ₂ /O ₂ Combustion Power Circulation System Based on Energy Storage. , 2019, , .		0
321	Offshore Wind Power Integration into Future Power Systems: Overview and Trends. <i>Journal of Marine Science and Engineering</i> , 2019, 7, 399.	1.2	57
322	Monitoring compositional changes in Ni(OH) ₂ electrocatalysts employed in the oxygen evolution reaction. <i>Analyst</i> , 2019, 144, 7318-7325.	1.7	20
323	Extending the Colloidal Transition Metal Dichalcogenide Library to ReS ₂ Nanosheets for Application in Gas Sensing and Electrocatalysis. <i>Small</i> , 2019, 15, e1904670.	5.2	38
324	Heading to Distributed Electrocatalytic Conversion of Small Abundant Molecules into Fuels, Chemicals, and Fertilizers. <i>Joule</i> , 2019, 3, 2602-2621.	11.7	86
325	Efficient Ceria-Supported Rhodium Nanoparticles as an Electrocatalyst for Hydrogen Evolution. <i>Journal of the Electrochemical Society</i> , 2019, 166, H897-H903.	1.3	8
326	Metallic ruthenium-based nanomaterials for electrocatalytic and photocatalytic hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2019, 7, 24691-24714.	5.2	80
327	Kinetic study of NaBH ₄ catalytic hydrolysis using supported NiCo ₂ O ₄ . <i>Materials Research Express</i> , 2019, 6, 125530.	0.8	12

#	ARTICLE	IF	CITATIONS
328	Reflecting trends in the academic landscape of sustainable energy using probabilistic topic modeling. <i>Energy, Sustainability and Society</i> , 2019, 9, .	1.7	17
329	A review on copper vanadate-based nanostructures for photocatalysis energy production. <i>International Journal of Energy Research</i> , 2019, 43, 9-28.	2.2	43
330	Inhibited photocorrosion and improved photocatalytic H ₂ -evolution activity of CdS photocatalyst by molybdate ions. <i>Applied Surface Science</i> , 2019, 463, 27-33.	3.1	54
331	Uniform CdS-decorated carbon microsheets with enhanced photocatalytic hydrogen evolution under visible-light irradiation. <i>Journal of Alloys and Compounds</i> , 2019, 770, 886-895.	2.8	39
332	Improvement of photofermentative biohydrogen production using pre-treated brewery wastewater with banana peels waste. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 2560-2568.	3.8	46
333	Synergistic Effect Between WO ₃ /Activated Carbon and BiVO ₄ Nanoparticles for Improved Photocatalytic Hydrogen Evolution. <i>Journal of Inorganic and Organometallic Polymers and Materials</i> , 2019, 29, 869-875.	1.9	6
334	Review of the current technologies and performances of hydrogen compression for stationary and automotive applications. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 102, 150-170.	8.2	227
335	Performance of Hydrogen Direct Injection Engine. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2019, , 21-36.	0.2	0
336	Technoeconomic analysis of hydrogen production via hydrogen sulfide methane reformation. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 12296-12302.	3.8	21
337	Rh-Ni/MgAl ₂ O ₄ catalyst for steam reforming of methane: Effect of Rh doping, calcination temperature and its application on metal monoliths. <i>Applied Catalysis A: General</i> , 2019, 570, 308-318.	2.2	56
338	A comparative study on the photocatalytic hydrogen production of ATiO ₃ (A = Zn, Cd and Pb) perovskites and their photoelectrochemical properties. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 371, 98-108.	2.0	22
339	Power dispatch assessment of a wind farm and a hydropower plant: A case study in Argentina. <i>Energy Conversion and Management</i> , 2019, 180, 391-400.	4.4	24
340	An Ultrasensitive and Ultrasensitive Hydrogen Sensor Based on Defect-Dominated Electron Scattering in Pt Nanowire Arrays. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801304.	1.9	13
341	A review on overall control of DC microgrids. <i>Journal of Energy Storage</i> , 2019, 21, 113-138.	3.9	154
342	A new photocatalyst based on Co(CO ₃) _{0.5} (OH)·0.11H ₂ O/Bi ₂ WO ₆ nanocomposites for high-efficiency cocatalyst-free O ₂ evolution. <i>Chemical Engineering Journal</i> , 2019, 359, 924-932.	6.6	59
343	Monitoring oxygen-vacancy ratio in NiFe-based electrocatalysts during oxygen evolution reaction in alkaline electrolyte. <i>Journal of Industrial and Engineering Chemistry</i> , 2019, 72, 273-280.	2.9	17
344	Ni anchored C ₂ N monolayers as low-cost and efficient catalysts for hydrogen production from formic acid. <i>Journal of Power Sources</i> , 2019, 413, 399-407.	4.0	40
345	Catalytic Metallopolymers from [2Fe-S] Clusters: Artificial Metalloenzymes for Hydrogen Production. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 7537-7550.	7.2	56

#	ARTICLE	IF	CITATIONS
346	Biohydrogen production from autoclaved fruit and vegetable wastes by dry fermentation under thermophilic condition. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 18776-18784.	3.8	47
347	Comparative study between supported and doped MgO catalysts in supercritical water gasification for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 3690-3701.	3.8	15
348	Five-year technology selection optimization to achieve specific CO ₂ emission reduction targets. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 3966-3984.	3.8	25
349	Hydrogen generation with acid/alkaline amphoteric water electrolysis. <i>Journal of Energy Chemistry</i> , 2019, 38, 162-169.	7.1	103
350	Hydrogen supply chain network design: An optimization-oriented review. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 103, 342-360.	8.2	94
351	Catalytic Metallopolymers from [2Fe-S] Clusters: Artificial Metalloenzymes for Hydrogen Production. <i>Angewandte Chemie</i> , 2019, 131, 7617-7630.	1.6	42
352	Application of nanoparticles in biofuels: An overview. <i>Fuel</i> , 2019, 237, 380-397.	3.4	268
353	Multi-objective planning of energy storage technologies for a fully renewable system: Implications for the main stakeholders in Chile. <i>Energy Policy</i> , 2019, 126, 494-506.	4.2	26
354	Guiding Principles for Designing Highly Efficient Metal-Free Carbon Catalysts. <i>Advanced Materials</i> , 2019, 31, e1805252.	11.1	110
355	Biohydrogen production by vermicompost-associated microorganisms using agro industrial wastes as substrate. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 9856-9865.	3.8	19
356	A review on the role, cost and value of hydrogen energy systems for deep decarbonisation. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 101, 279-294.	8.2	378
357	Use of Municipal Solid Waste (MSW)-Derived Hydrogen in Ecuador: Potential Applications for Urban Transportation. <i>Waste and Biomass Valorization</i> , 2019, 10, 1529-1537.	1.8	10
358	Characteristics of MOF, MWCNT and graphene containing materials for hydrogen storage: A review. <i>Journal of Energy Chemistry</i> , 2019, 30, 132-144.	7.1	155
359	Optimization of self-regulated hydrogen production from photovoltaic energy. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 10391-10397.	3.8	6
360	Clean Energy Technologies: Hydrogen Power and Fuel Cells. , 2020, , 366-371.		1
361	Catalytic Conversion of Greenhouse Gases. , 2020, , 336-345.		2
362	Perovskitoxid-Elektroden zur leistungsstarken photoelektrochemischen Wasserspaltung. <i>Angewandte Chemie</i> , 2020, 132, 140-158.	1.6	8
363	Perovskite Oxide Based Electrodes for High-Performance Photoelectrochemical Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 136-152.	7.2	253

#	ARTICLE	IF	CITATIONS
364	Elucidation of cobalt disturbance on Ni/Al ₂ O ₃ in dissociating hydrogen towards improved CO ₂ methanation and optimization by response surface methodology (RSM). <i>International Journal of Hydrogen Energy</i> , 2020, 45, 18562-18573.	3.8	20
365	Production of chemicals in thermophilic mixed culture fermentation: mechanism and strategy. <i>Critical Reviews in Environmental Science and Technology</i> , 2020, 50, 1-30.	6.6	34
366	An automated control system for pilot-scale biohydrogen production: Design, operation and validation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 3795-3806.	3.8	29
367	Efficient ZnO/ZnAl-LDH composite for H ₂ production by photocatalysis. <i>Renewable Energy</i> , 2020, 145, 124-132.	4.3	71
368	Polyoxometalates-engineered hydrogen generation rate and durability of Pt/CNT catalysts from ammonia borane. <i>Journal of Energy Chemistry</i> , 2020, 41, 142-148.	7.1	26
369	Multiscale design for high-performance glycolic acid electro-synthesis cell: Preparation of nanoscale-IrO ₂ -applied Ti anode and optimization of cell assembling. <i>Catalysis Today</i> , 2020, 351, 12-20.	2.2	13
370	Preparation of mixed matrix composite membrane for hydrogen purification by incorporating ZIF-8 nanoparticles modified with tannic acid. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 7444-7454.	3.8	33
371	Performance evaluation of water and air based PVT solar collector for hydrogen production application. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 7498-7507.	3.8	63
372	Fungal-Assisted Valorization of Raw Oil Palm Leaves for Production of Cellulase and Xylanase in Solid State Fermentation Media. <i>Waste and Biomass Valorization</i> , 2020, 11, 3133-3149.	1.8	19
373	Microscopic insights on the degradation of a PEM water electrolyzer with ultra-low catalyst loading. <i>Applied Catalysis B: Environmental</i> , 2020, 260, 118194.	10.8	63
374	Hydrogen sensing and adsorption kinetics on ordered mesoporous anatase TiO ₂ surface. <i>Applied Surface Science</i> , 2020, 500, 144219.	3.1	22
375	Recent advances in renewable hydrogen production by thermo-catalytic conversion of biomass-derived glycerol: Overview of prospects and challenges. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 18160-18185.	3.8	28
376	Modeling & optimization of renewable hydrogen production from biomass via anaerobic digestion & dry reformation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 18226-18240.	3.8	20
377	Hierarchical WO ₃ @ BiVO ₄ nanostructures for improved green energy production. <i>Applied Nanoscience (Switzerland)</i> , 2020, 10, 1183-1190.	1.6	15
378	Hierarchical three-dimensional framework interface assembled from oxygen-doped cobalt phosphide layer-shelled metal nanowires for efficient electrocatalytic water splitting. <i>Applied Catalysis B: Environmental</i> , 2020, 261, 118268.	10.8	87
379	Highly efficient Ni _{0.5} Fe _{0.5} Se ₂ /MWCNT electrocatalyst for hydrogen evolution reaction in acid media. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 7838-7847.	3.8	18
380	Ni-Fe-Cr-Oxides: An Efficient Catalyst Activated by Visible Light for the Oxygen Evolution Reaction. <i>Zeitschrift Fur Physikalische Chemie</i> , 2020, 234, 633-643.	1.4	5
381	Power grid with 100% renewable energy for small island developing states. <i>Evolutionary and Institutional Economics Review</i> , 2020, 17, 183-195.	0.3	8

#	ARTICLE	IF	CITATIONS
382	Bio-hydrogen Production from Sewage Sludge: Screening for Pretreatments and Semi-continuous Reactor Operation. <i>Waste and Biomass Valorization</i> , 2020, 11, 4225-4234.	1.8	20
383	Alternative Fuels for Sustainable Development. , 2020, , 317-331.		10
384	Environmental Concerns and Sustainable Development. , 2020, , .		10
385	Recent advances in membrane technologies for hydrogen purification. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 7313-7338.	3.8	202
386	Phosphoric acid doped composite proton exchange membrane for hydrogen production in medium-temperature copper chloride electrolysis. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 22209-22222.	3.8	14
387	Application of the modified Dubinin-Astakhov equation for a better understanding of high-pressure hydrogen adsorption on activated carbons. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 25912-25926.	3.8	26
388	Progress of electrospray and electrospinning in energy applications. <i>Nanotechnology</i> , 2020, 31, 132001.	1.3	19
389	Technology selection for sustainable hydrogen production: A multi-criteria assessment framework under uncertainties based on the combined weights and interval best-worst projection method. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 34396-34411.	3.8	26
390	On the assessment of the impact of a price-maker energy storage unit on the operation of power system: The ISO point of view. <i>Energy</i> , 2020, 190, 116224.	4.5	22
391	Structure Engineering of MoS ₂ via Simultaneous Oxygen and Phosphorus Incorporation for Improved Hydrogen Evolution. <i>Small</i> , 2020, 16, e1905738.	5.2	112
392	Hydrogen production from a solution plasma process of bio-oil. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 20210-20215.	3.8	12
393	Generation of Ni ₃ S ₂ nanorod arrays with high-density bridging S ₂ 2 ⁺ by introducing a small amount of Na ₃ VO ₄ ·12H ₂ O for superior hydrogen evolution reaction. <i>Nanoscale</i> , 2020, 12, 2063-2070.	2.8	6
394	Hydrogen as an energy vector. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 120, 109620.	8.2	536
395	Controlling and Stabilization of Ru Nanoparticles by Tuning the Nitrogen Content of the Support for Enhanced H ₂ Production through Aqueous-Phase Reforming of Glycerol. <i>ACS Catalysis</i> , 2020, 10, 2489-2507.	5.5	47
396	A review of the emission reduction potential of fuel switch towards biomass and electricity in European basic materials industry until 2030. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 120, 109672.	8.2	82
397	Binary electrocatalyst composed of Mo ₂ C nanocrystals with ultra-low Pt loadings anchored in TiO ₂ nanotube arrays for hydrogen evolution reaction. <i>Applied Surface Science</i> , 2020, 509, 144679.	3.1	21
398	Methods for Electrocatalysis. , 2020, , .		2
399	Insights into the catalytic activity of Ru/NaY catalysts for efficient H ₂ production through aqueous phase reforming. <i>Sustainable Energy and Fuels</i> , 2020, 4, 678-690.	2.5	20

#	ARTICLE	IF	CITATIONS
400	Performances of syngas production and deposited coke regulation during co-gasification of biomass and plastic wastes over Ni/Al ₂ O ₃ catalyst: Role of biomass to plastic ratio in feedstock. Chemical Engineering Journal, 2020, 392, 123728.	6.6	95
401	Effect of La ₂ O ₃ promotion on a Ni/Al ₂ O ₃ catalyst for H ₂ production in the in-line biomass pyrolysis-reforming. Fuel, 2020, 262, 116593.	3.4	51
402	Promising zirconia-mixed Al-based nitrogen carriers for chemical looping of NH ₃ : Reduced NH ₃ decomposition and improved NH ₃ yield. Fuel, 2020, 264, 116821.	3.4	24
403	Renewable hydrogen implementations for combined energy storage, transportation and stationary applications. Thermal Science and Engineering Progress, 2020, 16, 100460.	1.3	102
404	Mitigating the variability of hydrogen production in mixed culture through bioaugmentation with exogenous pure strains. International Journal of Hydrogen Energy, 2020, 45, 2617-2626.	3.8	12
405	Mesoporous iridium oxide/Sb-doped SnO ₂ nanostructured electrodes for polymer electrolyte membrane water electrolysis. International Journal of Hydrogen Energy, 2020, 45, 1409-1416.	3.8	18
406	CaXH ₃ (X = Mn, Fe, Co) perovskite-type hydrides for hydrogen storage applications. International Journal of Energy Research, 2020, 44, 2345-2354.	2.2	46
407	Hydrogen as a battery for a rooftop household solar power generation unit. International Journal of Hydrogen Energy, 2020, 45, 25811-25826.	3.8	12
408	Surface Plasmonic-Assisted Photocatalysis and Optoelectronic Devices with Noble Metal Nanocrystals: Design, Synthesis, and Applications. Advanced Functional Materials, 2020, 30, 1906744.	7.8	186
409	An overview of development and challenges in hydrogen powered vehicles. International Journal of Green Energy, 2020, 17, 13-37.	2.1	158
410	Estimation of exchange current density for hydrogen evolution reaction of copper electrode by using the differentiating polarization method. Applied Surface Science, 2020, 505, 144300.	3.1	7
411	Microstructure and first hydrogenation properties of TiFe alloy with Zr and Mn as additives. International Journal of Hydrogen Energy, 2020, 45, 787-797.	3.8	56
412	Hydrogen from solar energy, a clean energy carrier from a sustainable source of energy. International Journal of Energy Research, 2020, 44, 4110-4131.	2.2	272
413	Chinese Green Hydrogen Production Potential Development: A Provincial Case Study. IEEE Access, 2020, 8, 171968-171976.	2.6	19
414	Co-electrolysis of steam and carbon dioxide in large area solid oxide cells based on infiltrated mesoporous oxygen electrodes. Journal of Power Sources, 2020, 478, 228774.	4.0	15
415	Nano-diamond based photocatalysis for solar hydrogen production. International Journal of Hydrogen Energy, 2020, 45, 31538-31554.	3.8	15
416	A critical review on the principles, applications, and challenges of waste-to-hydrogen technologies. Renewable and Sustainable Energy Reviews, 2020, 134, 110365.	8.2	83
417	Metabolic pathways for microalgal biohydrogen production: Current progress and future perspectives. Bioresource Technology, 2020, 318, 124253.	4.8	48

#	ARTICLE	IF	CITATIONS
418	Critical review on the necessity of bioelectricity generation from slaughterhouse industry waste and wastewater using different anaerobic digestion reactors. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 134, 110360.	8.2	26
419	Profitability analysis of a novel configuration to synergize biogas upgrading and Power-to-Gas. <i>Energy Conversion and Management</i> , 2020, 224, 113369.	4.4	24
420	Renewable hydrogen for the chemical industry. <i>MRS Energy & Sustainability</i> , 2020, 7, 1.	1.3	58
421	A review and recent advances in solar-to-hydrogen energy conversion based on photocatalytic water splitting over doped-TiO ₂ nanoparticles. <i>Solar Energy</i> , 2020, 211, 522-546.	2.9	185
422	Thermodynamic study of a hybrid PEMFC-solar energy multi-generation system combined with SOEC and dual Rankine cycle. <i>Energy Conversion and Management</i> , 2020, 226, 113512.	4.4	36
423	Thermo-economic analysis of reverse water-gas shift process with different temperatures for green methanol production as a hydrogen carrier. <i>Journal of CO₂ Utilization</i> , 2020, 41, 101280.	3.3	25
424	Hydrogen production from formaldehyde steam reforming using recyclable NiO/NaCl catalyst. <i>Applied Surface Science</i> , 2020, 532, 147376.	3.1	12
425	Hydrogen production performance from food waste using piggery anaerobic digested residues inoculum in long-term systems. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 33208-33217.	3.8	22
426	Bioenergy recovery from wastewater produced by hydrothermal processing biomass: Progress, challenges, and opportunities. <i>Science of the Total Environment</i> , 2020, 748, 142383.	3.9	63
427	Simultaneous interfacial chemistry and inner Helmholtz plane regulation for superior alkaline hydrogen evolution. <i>Energy and Environmental Science</i> , 2020, 13, 3007-3013.	15.6	83
428	Computational screening of vdWs heterostructures of BSe with MoSe ₂ and WSe ₂ as sustainable hydrogen production materials. <i>Current Applied Physics</i> , 2020, , .	1.1	1
429	Highly sensitive optical sensor for hydrogen gas based on a polymer microcylinder ring resonator. <i>Sensors and Actuators B: Chemical</i> , 2020, 310, 127806.	4.0	16
430	One-pot microwave synthesis of hierarchical C-doped CuO dandelions/g-C ₃ N ₄ nanocomposite with enhanced photostability for photoelectrochemical water splitting. <i>Applied Surface Science</i> , 2020, 530, 147271.	3.1	46
431	Ordinary clay as a support of nickel catalyst for steam reforming of acetic acid: Impacts of pretreatments of clay on catalytic behaviors. <i>International Journal of Energy Research</i> , 2020, 44, 10378-10393.	2.2	11
432	Exfoliated MoSe ₂ Nanosheets Doped on the Surface of ZnO Nanorods for Hydrogen Sensing Applications. <i>ACS Applied Nano Materials</i> , 2020, 3, 12139-12147.	2.4	24
433	Environmental Issues Related to Bioenergy. , 2020, , 92-92.		4
434	Encapsulated titanium dioxide nanoparticle-Escherichia coli hybrid system improves light driven hydrogen production under aerobic condition. <i>Bioresource Technology</i> , 2020, 318, 124057.	4.8	19
435	A study on hydrogen generation from NaBH ₄ solution using Co-loaded resin catalysts. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 34761-34772.	3.8	29

#	ARTICLE	IF	CITATIONS
436	Advanced bioH ₂ and bioCH ₄ production with cobalt-doped magnetic carbon. RSC Advances, 2020, 10, 41791-41801.	1.7	3
437	New Porous Silicon-Containing Organic Polymers: Synthesis and Carbon Dioxide Uptake. Processes, 2020, 8, 1488.	1.3	9
438	Tuning the RWGS Reaction via EPOC and In Situ Electro-oxidation of Cobalt Nanoparticles. ACS Catalysis, 2020, 10, 14916-14927.	5.5	24
439	Enhanced and stabilized hydrogen production from methanol by ultrasmall Ni nanoclusters immobilized on defect-rich h-BN nanosheets. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29442-29452.	3.3	34
440	Large-scale hydrogen production and storage technologies: Current status and future directions. International Journal of Hydrogen Energy, 2021, 46, 23498-23528.	3.8	226
441	Photocatalytic nanomaterials for hydrogen evolution from water splitting. , 2020, , 139-158.		4
442	Carbon-based Electrochemical Energy Storage Devices. Chemical Record, 2020, 20, 1163-1180.	2.9	32
443	Amorphous NiFe phosphides supported on nanoarray-structured nitrogen-doped carbon paper for high-performance overall water splitting. Electrochimica Acta, 2020, 357, 136873.	2.6	23
444	Study of the synthesis of C:H coating by PECVD for protecting Mg-based nano-objects. Plasma Processes and Polymers, 2020, 17, 2000083.	1.6	1
445	Hydrogen from biomass. , 2020, , 43-73.		1
446	Metallic VS ₂ /blue phosphorene heterostructures as promising anode materials for high-performance lithium ion batteries: A first principles study. Applied Surface Science, 2020, 533, 147478.	3.1	37
447	Integration of renewable energies using the surplus capacity of wind farms to generate H ₂ and electricity in Brazil and in the Rio Grande do Sul state: energy planning and avoided emissions within a circular economy. International Journal of Hydrogen Energy, 2020, 45, 24190-24202.	3.8	28
448	The Effect of in Situ Phenol Hydrogenation with Raney Ni on the Fate of Hydrogen from Glycerol Aqueous Phase Reforming. Industrial & Engineering Chemistry Research, 2020, 59, 14679-14688.	1.8	8
449	A DVD-MoS ₂ /Ag ₂ S/Ag Nanocomposite Thiol-Conjugated with Porphyrins for an Enhanced Light-Mediated Hydrogen Evolution Reaction. Nanomaterials, 2020, 10, 1266.	1.9	3
450	Advanced Control for Hydrogen Pyrolysis Installations. Energies, 2020, 13, 3270.	1.6	2
451	Loss of integrity of hydrogen technologies: A critical review. International Journal of Hydrogen Energy, 2020, 45, 23809-23840.	3.8	81
452	Platinum Single Atoms Supported on Nanoarray-Structured Nitrogen-Doped Graphite Foil with Enhanced Catalytic Performance for Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2020, 12, 38106-38112.	4.0	24
453	Effect of surface structure and Pd doping of Fe catalysts on the selective hydrodeoxygenation of phenol. Catalysis Today, 2020, 371, 189-189.	2.2	12

#	ARTICLE	IF	CITATIONS
454	Photo-biohydrogen Production by Photosensitization with Biologically Precipitated Cadmium Sulfide in Hydrogen-Forming Recombinant <i>Escherichia coli</i> . <i>ChemBioChem</i> , 2020, 21, 3389-3397.	1.3	14
455	Electrodeposition of Ni-W and Ni-W-P films using a pulse current technique and their application for hydrogen evolution in an acidic solution. <i>Anti-Corrosion Methods and Materials</i> , 2020, 67, 38-47.	0.6	4
456	A review on graphitic carbon nitride (g-C ₃ N ₄) based nanocomposites: Synthesis, categories, and their application in photocatalysis. <i>Journal of Alloys and Compounds</i> , 2020, 846, 156446.	2.8	359
457	Hydrogen production from formaldehyde steam reforming using recyclable NiO/NaF catalyst. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 28752-28763.	3.8	14
458	Efficient generation of hydrogen by two-step thermochemical cycles: Successive thermal reduction and water splitting reactions using equal-power microwave irradiation and a high entropy material. <i>Applied Energy</i> , 2020, 279, 115777.	5.1	28
459	A study on energy and fluid flows for a novel photoelectrochemical reactor developed for hydrogen production. <i>International Journal of Heat and Mass Transfer</i> , 2020, 163, 120523.	2.5	7
460	Development of a low purity aluminum alloy (Al6082) anodization process and its application as a platinum-based catalyst in catalytic hydrogen combustion. <i>Surface and Coatings Technology</i> , 2020, 404, 126483.	2.2	20
461	Structural and catalytic studies of Mg _{1-x} Ni _x O nanomaterials for gasification of biomass in supercritical water for H ₂ -rich syngas production. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 33218-33234.	3.8	7
462	Ameliorated hydrogen production through integrated dark-photo fermentation in a flat plate photobioreactor: Mathematical modelling and optimization of energy efficiency. <i>Energy Conversion and Management</i> , 2020, 226, 113549.	4.4	16
463	First-principle investigation of XSrH_3 (X = K and Rb) perovskite-type hydrides for hydrogen storage. <i>International Journal of Quantum Chemistry</i> , 2020, 120, e26419.	1.0	36
464	Low Temperature Hydrothermal Method for Synthesis of Crystalline Fe ₂ O ₃ and their Oxygen Evolution Performance. <i>Electroanalysis</i> , 2020, 32, 2528-2534.	1.5	12
465	Liquid-Phase Exfoliated GeSe Nanoflakes for Photoelectrochemical-Type Photodetectors and Photoelectrochemical Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 48598-48613.	4.0	56
466	Electrocatalytic Investigation of M@Pd (M=Ni, Co, Cu) Core-Shell Nanostructure Supported on N, S-Doped Reduced Graphene Oxide towards Hydrogen and Oxygen Evolution Reaction. <i>ChemistrySelect</i> , 2020, 5, 9989-9998.	0.7	8
467	Fabrication of a Robust PEM Water Electrolyzer Based on Non-Noble Metal Cathode Catalyst: [Mo ₃ S ₁₃] ²⁺ Clusters Anchored to N-Doped Carbon Nanotubes. <i>Small</i> , 2020, 16, e2003161.	5.2	50
468	Fe ₂ O ₃ /CaO-Al ₂ O ₃ multifunctional catalyst for hydrogen production by sorption-enhanced chemical looping reforming of ethanol. <i>Biomass Conversion and Biorefinery</i> , 2020, , 1.	2.9	6
469	Design of three-dimensional interconnected porous hydroxyapatite ceramic-based composite phase change materials for thermal energy storage. <i>International Journal of Energy Research</i> , 2020, 44, 11930-11940.	2.2	13
470	Electrodeposited nickel phosphide supported by copper foam for proton exchange membrane water electrolyzer. <i>Korean Journal of Chemical Engineering</i> , 2020, 37, 1379-1386.	1.2	10
471	Hydrogen evolving electrode with low Pt loading fabricated by repeated pulse electrodeposition. <i>Korean Journal of Chemical Engineering</i> , 2020, 37, 1340-1345.	1.2	4

#	ARTICLE	IF	CITATIONS
472	Reversible Hydrogenationâ€“Dehydrogenation of Acetylpyridine-Pd-MIL-101(Cr) for Chemical Hydrogen Storage. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 17671-17679.	1.8	3
473	Two-Dimensional As/BlueP van der Waals Hetero-Structure as a Promising Photocatalyst for Water Splitting: A DFT Study. <i>Coatings</i> , 2020, 10, 1160.	1.2	9
474	Peopleâ€™s Attitude to Energy from Hydrogenâ€™From the Point of View of Modern Energy Technologies and Social Responsibility. <i>Energies</i> , 2020, 13, 6495.	1.6	55
475	An Adaptive Model-Based MPPT Technique with Drift-Avoidance for Grid-Connected PV Systems. <i>Energies</i> , 2020, 13, 6656.	1.6	20
476	Role of the Sulphur Source in the Solvothermal Synthesis of Ag-CdS Photocatalysts: Effects on the Structure and Photoactivity for Hydrogen Production. <i>Hydrogen</i> , 2020, 1, 64-89.	1.7	6
477	On the Way of Policy Making to Reduce the Reliance of Fossil Fuels: Case Study of Iran. <i>Sustainability</i> , 2020, 12, 10606.	1.6	15
478	Green and facile synthesis of cerium doped Ni ₃ Fe electrocatalyst for efficient oxygen evolution reaction. <i>Bulletin of the Chemical Society of Ethiopia</i> , 2020, 34, 353-363.	0.5	2
479	CO ₂ Reduction to Methanol in the Liquid Phase: A Review. <i>ChemSusChem</i> , 2020, 13, 6141-6159.	3.6	54
480	Electricity markets in flux: The importance of a just transition. <i>Electricity Journal</i> , 2020, 33, 106835.	1.3	5
481	Opportunities and Barriers of Hydrogenâ€™Electric Hybrid Powertrain Vans: A Systematic Literature Review. <i>Processes</i> , 2020, 8, 1261.	1.3	11
482	Integrating a gas turbine system and a flameless boiler to make steam for hydrogen production in a solid oxide steam electrolyzer. <i>Applied Thermal Engineering</i> , 2020, 180, 115890.	3.0	16
483	Control of the pore size distribution inside the RuO ₂ catalyst by using silica nanosphere particle for highly efficient water electrolysis. <i>Microporous and Mesoporous Materials</i> , 2020, 309, 110567.	2.2	17
484	An outlook on the global development of renewable and sustainable energy at the time of COVID-19. <i>Energy Research and Social Science</i> , 2020, 68, 101633.	3.0	213
485	Emerging technologies by hydrogen: A review. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 18753-18771.	3.8	276
486	Strategic implementation of pulsed oxidation for mitigation of CO poisoning in polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2020, 468, 228352.	4.0	14
487	Recovery of Hydrogen and Sulfur by Electrolysis of Ionized H ₂ S in an Amine-Containing Organic Electrolyte with Highly Temperature-Dependent Sulfur Solubility. <i>Energy & Fuels</i> , 2020, 34, 7756-7762.	2.5	16
488	Robust scheduling of hydrogen based smart micro energy hub with integrated demand response. <i>Journal of Cleaner Production</i> , 2020, 267, 122041.	4.6	131
489	The double tuning effect of TiO ₂ on Pt catalyzed dehydrogenation of methylcyclohexane. <i>Molecular Catalysis</i> , 2020, 492, 110971.	1.0	24

#	ARTICLE	IF	CITATIONS
490	Electric and hydrogen buses: Shifting from conventionally fuelled cars in the UK. <i>Transportation Research, Part D: Transport and Environment</i> , 2020, 85, 102350.	3.2	58
491	Current State of [FeFe]-Hydrogenase Research: Biodiversity and Spectroscopic Investigations. <i>ACS Catalysis</i> , 2020, 10, 7069-7086.	5.5	82
492	Energy and exergy analyses of an integrated renewable energy system for hydrogen production. <i>Energy</i> , 2020, 204, 117945.	4.5	46
493	High Temperature Water Gas Shift Reactivity of Novel Perovskite Catalysts. <i>Catalysts</i> , 2020, 10, 582.	1.6	14
494	Environmental evaluation of european ammonia production considering various hydrogen supply chains. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 130, 109964.	8.2	77
495	Improving biogas upgrading and liquid chemicals production simultaneously by a membrane biofilm reactor. <i>Bioresource Technology</i> , 2020, 313, 123693.	4.8	24
496	Role of indigenous bacteria in dark fermentation of organic substrates. <i>Bioresource Technology</i> , 2020, 313, 123665.	4.8	33
497	A numerical study of unintended hydrogen release in a hydrogen refueling station. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 20142-20152.	3.8	28
498	Characteristics and anode reaction of organic wastewater-assisted coal electrolysis for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 20894-20903.	3.8	20
499	Enhanced interfacial electron transfer and boosted visible-light photocatalytic hydrogen evolution activity of g-C ₃ N ₄ by noble-metal-free MoSe ₂ nanoparticles. <i>Journal of Materials Science</i> , 2020, 55, 13114-13126.	1.7	22
500	Hierarchical nickel-vanadium nano hybrid with strong electron transfer for accelerated hydrogen evolution reaction. <i>Applied Surface Science</i> , 2020, 528, 146982.	3.1	14
501	Review of composite cathodes for intermediate-temperature solid oxide fuel cell applications. <i>Ceramics International</i> , 2020, 46, 23314-23325.	2.3	95
502	Robust design of off-grid solar-powered charging station for hydrogen and electric vehicles via robust optimization approach. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 18995-19006.	3.8	50
503	In situ measurement technologies on solid-state hydrogen storage materials: a review. <i>Materials Today Energy</i> , 2020, 17, 100463.	2.5	32
504	Ultralow Ru Loading Transition Metal Phosphides as High-Efficient Bifunctional Electrocatalyst for a Solar-Driven Hydrogen Generation System. <i>Advanced Energy Materials</i> , 2020, 10, 2000814.	10.2	174
505	Numerical simulation of hydrogen active magnetic regenerative liquefier. <i>Renewable Energy</i> , 2020, 158, 487-499.	4.3	2
506	A novel airlift photocatalytic fuel cell (APFC) with immobilized CdS coated zerovalent iron (Fe@CdS) and g-C ₃ N ₄ photocatalysts film as photoanode for power generation and organics degradation. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2020, 602, 125164.	2.3	24
507	Opportunities and challenges of low-carbon hydrogen via metallic membranes. <i>Progress in Energy and Combustion Science</i> , 2020, 80, 100851.	15.8	58

#	ARTICLE	IF	CITATIONS
508	Ru Species Supported on MOF-Derived N-Doped TiO ₂ /C Hybrids as Efficient Electrocatalytic/Photocatalytic Hydrogen Evolution Reaction Catalysts. <i>Advanced Functional Materials</i> , 2020, 30, 2003007.	7.8	126
509	Waste-to-wealth by sludge-to-energy: a comprehensive literature reviews. , 2020, , 45-74.		1
510	Nanostructured bifunctional electrocatalyst support materials for unitized regenerative fuel cells. , 2020, , 69-103.		0
511	The Influence of the Electrodeposition Parameters on the Properties of Mn-Co-Based Nanofilms as Anode Materials for Alkaline Electrolysers. <i>Materials</i> , 2020, 13, 2662.	1.3	6
512	Hydrogen production from natural organic matter via cascading oxic-anoxic photocatalytic processes: An energy recovering water purification technology. <i>Water Research</i> , 2020, 175, 115684.	5.3	23
513	Application of molecular techniques in biohydrogen production as a clean fuel. <i>Science of the Total Environment</i> , 2020, 722, 137795.	3.9	32
514	Hydrogen from offshore wind: Investor perspective on the profitability of a hybrid system including for curtailment. <i>Applied Energy</i> , 2020, 265, 114732.	5.1	94
515	Bioinspired Ultrastrong Nanocomposite Membranes for Salinity Gradient Energy Harvesting from Organic Solutions. <i>Advanced Energy Materials</i> , 2020, 10, 1904098.	10.2	48
516	Atomic Layer Deposition of Cobalt Phosphide for Efficient Water Splitting. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 17172-17176.	7.2	47
517	Towards Non-Mechanical Hybrid Hydrogen Compression for Decentralized Hydrogen Facilities. <i>Energies</i> , 2020, 13, 3145.	1.6	51
518	Die Atomlagenabscheidung von Cobaltphosphid zum Zwecke einer effizienten Wasserspaltung. <i>Angewandte Chemie</i> , 2020, 132, 17324-17329.	1.6	2
519	Hydrophilic/Aerophobic Hydrogen-Evolving Electrode: NiRu-Based Metal-Organic Framework Nanosheets In Situ Grown on Conductive Substrates. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 34728-34735.	4.0	65
520	Systematic study of H ₂ production from catalytic photoreforming of cellulose over Pt catalysts supported on TiO ₂ . <i>Chinese Journal of Chemical Engineering</i> , 2020, 28, 2084-2091.	1.7	17
521	Reactivity of Cobalt Clusters Co _n ^{±0} with Ammonia: Co ₃ ⁺ Cluster Catalysis for NH ₃ Dehydrogenation. <i>Journal of Physical Chemistry A</i> , 2020, 124, 5879-5886.	1.1	13
522	Core/shell cable-like Ni ₃ S ₂ nanowires/N-doped graphene-like carbon layers as composite electrocatalyst for overall electrocatalytic water splitting. <i>Chemical Engineering Journal</i> , 2020, 401, 126045.	6.6	134
523	Superior catalytic effect of facile synthesized LaNi _{4.5} Mn _{0.5} submicro-particles on the hydrogen storage properties of MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2020, 844, 156069.	2.8	25
524	Carbon-based nanocomposites in solid-state hydrogen storage technology: An overview. <i>International Journal of Energy Research</i> , 2020, 44, 11044-11058.	2.2	41
525	FeNi ₃ and Ni-Based Nanoparticles as Electrocatalysts for Magnetically Enhanced Alkaline Water Electrolysis. <i>Electrocatalysis</i> , 2020, 11, 567-577.	1.5	14

#	ARTICLE	IF	CITATIONS
526	Efficiency evaluation of a sustainable hydrogen production scheme based on super efficiency SBM model. <i>Journal of Cleaner Production</i> , 2020, 256, 120447.	4.6	27
527	Cu, Mg and Co effect on nickel-ceria supported catalysts for ethanol steam reforming reaction. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 21512-21522.	3.8	40
528	Gaseous Biofuels to Sustainable Mobility. , 0, , .		0
529	Advanced integrated systems for hydrogen production and storage from low-rank fuels. , 2020, , 115-146.		0
530	Nanostructured molybdenum Phosphide/N-Doped carbon nanotube-graphene composites as efficient electrocatalysts for hydrogen evolution reaction. <i>Applied Catalysis A: General</i> , 2020, 594, 117451.	2.2	20
531	Facile synthesis and characterization of nano-Pd loaded NiCo microfibers as stable catalysts for hydrogen generation from sodium borohydride. <i>Chemical Physics Letters</i> , 2020, 743, 137170.	1.2	16
532	On the influence of the anodic porous transport layer on PEM electrolysis performance at high current densities. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 6047-6058.	3.8	53
533	Fast in-situ photodeposition of Ag and Cu nanoparticles onto AgTaO ₃ perovskite for an enhanced photocatalytic hydrogen generation. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 9744-9757.	3.8	27
534	Hydrogen production from dry spirulina algae with downstream feeding in microwave plasma reactor assisted under atmospheric pressure. <i>Journal of the Energy Institute</i> , 2020, 93, 1597-1601.	2.7	18
535	Performance analysis of the thermoelectric device as the internal heat exchanger of the trans-critical carbon dioxide cycle. <i>Energy Conversion and Management</i> , 2020, 208, 112585.	4.4	13
536	Optimal design of the distributed H ₂ production system with cost and safety considerations. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 34316-34325.	3.8	12
537	Effect of adding TiO ₂ , SiO ₂ and graphene on of electrochemical hydrogen storage performance and coulombic efficiency of CoAl ₂ O ₄ spinel. <i>Journal of Alloys and Compounds</i> , 2020, 828, 154353.	2.8	30
538	Thermochemical CO ₂ reduction over NiFe ₂ O ₄ @alumina filled reactor heated by high-flux solar simulator. <i>Energy</i> , 2020, 197, 117267.	4.5	36
539	Probing into the effect of heterojunctions between Cu/Mo ₂ C/Mo ₂ N on HER performance. <i>Catalysis Science and Technology</i> , 2020, 10, 2213-2220.	2.1	17
540	Response Surface Optimization of Hydrogen-Rich Syngas Production by Greenhouse Gases Reforming. <i>Chemical Engineering and Technology</i> , 2020, 43, 742-751.	0.9	7
541	Consciously Constructing the Robust NiS/g-C ₃ N ₄ Hybrids for Enhanced Photocatalytic Hydrogen Evolution. <i>Catalysis Letters</i> , 2020, 150, 1898-1908.	1.4	117
542	Challenges towards hydrogen economy in China. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 34326-34345.	3.8	133
543	The application of perovskite materials in solar water splitting. <i>Journal of Semiconductors</i> , 2020, 41, 011701.	2.0	46

#	ARTICLE	IF	CITATIONS
544	Waste-to-energy nexus for circular economy and environmental protection: Recent trends in hydrogen energy. <i>Science of the Total Environment</i> , 2020, 713, 136633.	3.9	249
545	Effects of FeO and NiO nanoparticles on hydrogen production from cotton stalk hydrolysate using <i>Klebsiella</i> sp. WL1316: Evaluation of size and concentration of the nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 6243-6253.	3.8	29
546	Metal-organic frameworks as a platform for clean energy applications. <i>EnergyChem</i> , 2020, 2, 100027.	10.1	530
547	Photosensitizers for H ₂ Evolution Based on Charged or Neutral Zn and Sn Porphyrins. <i>Inorganic Chemistry</i> , 2020, 59, 1611-1621.	1.9	27
548	Octapod-Shaped CdSe Nanocrystals Hosting Pt with High Mass Activity for the Hydrogen Evolution Reaction. <i>Chemistry of Materials</i> , 2020, 32, 2420-2429.	3.2	26
549	One-step electrodeposition of Ni _x Fe _{3x} O ₄ /Ni hybrid nanosheet arrays as highly active and robust electrocatalysts for the oxygen evolution reaction. <i>Green Chemistry</i> , 2020, 22, 1710-1719.	4.6	33
550	Light-driven biological hydrogen production by <i>Escherichia coli</i> mediated by TiO ₂ nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 6254-6261.	3.8	37
551	CO ₂ hydrogenation to formic acid over heterogenized ruthenium catalysts using a fixed bed reactor with separation units. <i>Green Chemistry</i> , 2020, 22, 1639-1649.	4.6	70
552	Biohydrogen Production Through Dark Fermentation. <i>Chemical Engineering and Technology</i> , 2020, 43, 601-612.	0.9	136
553	Investigation of three system shut-down strategies alongside optimization suggestion for proton exchange membrane fuel cells via in-situ measurements. <i>International Journal of Green Energy</i> , 2020, 17, 157-170.	2.1	1
554	Tetrapyrrophenazine/graphene composites for aqueous hybrid flow battery anodes with long cycle life. <i>Carbon</i> , 2020, 161, 309-315.	5.4	11
555	Preparation of high-performance and pressure-resistant mixed matrix membranes for CO ₂ /H ₂ separation by modifying COF surfaces with the groups or segments of the polymer matrix. <i>Journal of Membrane Science</i> , 2020, 601, 117882.	4.1	61
556	CoB doped acid modified zeolite catalyst for enhanced hydrogen release from sodium borohydride hydrolysis. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 15086-15099.	3.8	50
557	Critical Issues of Chemical Kinetics in MILD Combustion. <i>Frontiers in Mechanical Engineering</i> , 2020, 6, .	0.8	11
558	Allothermal Gasification of Peat and Lignite by a Focused Light Flow. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2640.	1.3	7
559	Spatial-temporal Heterogeneity of Green Development Efficiency and Its Influencing Factors in Growing Metropolitan Area: A Case Study for the Xuzhou Metropolitan Area. <i>Chinese Geographical Science</i> , 2020, 30, 352-365.	1.2	27
560	Development and thermodynamic assessment of a novel solar and biomass energy based integrated plant for liquid hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 34587-34607.	3.8	26
561	Enhanced photoelectrochemical water splitting with template-free electrodeposition of SnS nanorods photoelectrode. <i>Journal of Alloys and Compounds</i> , 2020, 830, 154729.	2.8	14

#	ARTICLE	IF	CITATIONS
562	Catalytic steam reforming of tar for enhancing hydrogen production from biomass gasification: a review. <i>Frontiers in Energy</i> , 2020, 14, 545-569.	1.2	27
563	Surface reconstruction of NiCoP pre-catalysts for bifunctional water splitting in alkaline electrolyte. <i>Electrochimica Acta</i> , 2020, 345, 136114.	2.6	71
564	Cobalt-based oxygen evolution catalyst as active and stable as iridium in acidic media. <i>Electrochimica Acta</i> , 2020, 344, 136160.	2.6	4
565	Designing transition-metal-boride-based electrocatalysts for applications in electrochemical water splitting. <i>Nanoscale</i> , 2020, 12, 9327-9351.	2.8	88
566	Electrocatalysts Based on Transition Metal Borides and Borates for the Oxygen Evolution Reaction. <i>Chemistry - A European Journal</i> , 2020, 26, 11661-11672.	1.7	43
567	High purity H ₂ production from sorption enhanced bio-ethanol reforming via sol-gel-derived Ni ²⁺ /CaO ²⁺ /Al ₂ O ₃ bi-functional materials. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 34449-34460.	3.8	34
568	Fluctuation Analysis of a Complementary Wind-Solar Energy System and Integration for Large Scale Hydrogen Production. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 7097-7110.	3.2	62
569	Study of an autothermal-equilibrium metal hydride reactor by reaction heat recovery as hydrogen source for the application of fuel cell power system. <i>Energy Conversion and Management</i> , 2020, 213, 112864.	4.4	27
570	3d transitional-metal single atom catalysis toward hydrogen evolution reaction on MXenes supports. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 14396-14406.	3.8	59
571	Experimental study and development of an improved sulfur-iodine cycle integrated with HI electrolysis for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 13176-13188.	3.8	33
572	Amorphous Iridium and Tantalum Oxide Layers Coated on Titanium Felt for Electrocatalytic Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2020, 3, 4531-4538.	2.5	16
573	Ultrafine Mo ₂ C Nanoparticles Confined in 2D Meshlike Carbon Nanolayers for Effective Hydrogen Evolution. <i>ChemCatChem</i> , 2020, 12, 3195-3201.	1.8	18
574	Design and analysis of renewable hydrogen production from biogas by integrating a gas turbine system and a solid oxide steam electrolyzer. <i>Energy Conversion and Management</i> , 2020, 211, 112760.	4.4	28
575	Life cycle assessment and techno-economic analysis of biomass-to-hydrogen production with methane tri-reforming. <i>Energy</i> , 2020, 199, 117488.	4.5	59
576	A novel <i>Microcystis aeruginosa</i> supported manganese catalyst for hydrogen generation through methanolysis of sodium borohydride. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 12755-12765.	3.8	31
577	Plasmonically driven photocatalytic hydrogen evolution activity of a Pt-functionalized Au@CeO ₂ core-shell catalyst under visible light. <i>Journal of Materials Chemistry A</i> , 2020, 8, 7687-7694.	5.2	45
578	Bi-functional S-Doped Ni Catalysts on Copper Foams with Enhanced Electrocatalytic Performance and Excellent Stability for Electrocatalytic Water Splitting. <i>International Journal of Electrochemical Science</i> , 2020, 15, 2806-2821.	0.5	5
579	Wearable colorimetric sensing fiber based on polyacrylonitrile with PdO@ZnO hybrids for the application of detecting H ₂ leakage. <i>Textile Research Journal</i> , 2020, 90, 2198-2211.	1.1	26

#	ARTICLE	IF	CITATIONS
580	Investigation of a new integrated system for multiple outputs with hydrogen and methanol. International Journal of Hydrogen Energy, 2021, 46, 4699-4715.	3.8	6
581	Investigating thermal properties of Nanoparticle Dispersed Paraffin (NDP) as phase change material for thermal energy storage. Materials Today: Proceedings, 2021, 45, 745-750.	0.9	29
582	An improved hybrid nanocomposites of rice husk derived graphene (GRHA)/Zeolitic imidazolate framework-8 for hydrogen adsorption. International Journal of Hydrogen Energy, 2021, 46, 24864-24876.	3.8	11
583	Enhanced Biohydrogen Production Influenced by Magnetic Nanoparticles Supplementation Using Enterobacter cloacae. Waste and Biomass Valorization, 2021, 12, 2905-2913.	1.8	8
584	Design of efficient electrocatalysts for hydrogen evolution reaction based on 2D MXenes. Journal of Energy Chemistry, 2021, 55, 244-255.	7.1	104
585	Intimately Contacted Ni ₂ P on CdS Nanorods for Highly Efficient Photocatalytic H ₂ Evolution: New Phosphidation Route and the Interfacial Separation Mechanism of Charge Carriers. Applied Catalysis B: Environmental, 2021, 281, 119443.	10.8	90
586	Comparative assessment of renewable energy-based hydrogen production methods. Renewable and Sustainable Energy Reviews, 2021, 135, 110192.	8.2	155
587	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
588	Enhancing the operation of fuel cell-photovoltaic-battery-supercapacitor renewable system through a hybrid energy management strategy. International Journal of Hydrogen Energy, 2021, 46, 6061-6075.	3.8	104
589	Improved hydrogen evolution activity by unique NiS ₂ -MoS ₂ heterostructures with misfit lattices supported on poly(ionic liquid)s functionalized polypyrrole/graphene oxide nanosheets. Chemical Engineering Journal, 2021, 404, 126253.	6.6	23
590	Dendritic gold-supported iridium/iridium oxide ultra-low loading electrodes for high-performance proton exchange membrane water electrolyzer. Applied Catalysis B: Environmental, 2021, 283, 119596.	10.8	44
591	Fuel cell application in the automotive industry and future perspective. Energy, 2021, 214, 118955.	4.5	377
592	Effect of MoS ₂ solution on reducing the wall thickness of ZnO nanotubes to enhance their hydrogen gas sensing properties. Journal of Alloys and Compounds, 2021, 854, 157102.	2.8	14
593	Homoacetogenesis: New insights into controlling this unsolved challenge by selecting the optimal C/N ratio, C/P ratio and hydraulic retention time. Chemical Engineering Research and Design, 2021, 145, 273-284.	2.7	12
594	Environmental profile of thermoelectrics for applications with continuous waste heat generation via life cycle assessment. Science of the Total Environment, 2021, 752, 141674.	3.9	8
595	Green ionic liquids and deep eutectic solvents for desulphurization, denitrification, biomass, biodiesel, bioethanol and hydrogen fuels: a review. Environmental Chemistry Letters, 2021, 19, 1001-1023.	8.3	43
596	Analysis of the wind energy market in Denmark and future interactions with an emerging hydrogen market. International Journal of Hydrogen Energy, 2021, 46, 146-156.	3.8	25
597	Carbon-based transition metal sulfides/selenides nanostructures for electrocatalytic water splitting. Journal of Alloys and Compounds, 2021, 852, 156810.	2.8	58

#	ARTICLE	IF	CITATIONS
598	Ultrafine VN nanoparticles confined in Co@N-doped carbon nanotubes for boosted hydrogen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2021, 853, 157257.	2.8	22
599	Fabrication of porous Ni-Co catalytic electrode with high performance in hydrogen evolution reaction. <i>Applied Surface Science</i> , 2021, 539, 148045.	3.1	43
600	Directly application of bimetallic 2D-MOF for advanced electrocatalytic oxygen evolution. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 416-424.	3.8	30
601	An overview of conventional and non-conventional hydrogen production methods. <i>Materials Today: Proceedings</i> , 2021, 46, 5353-5359.	0.9	38
602	Predictive functional profiling of microbial communities in fermentative hydrogen production system using PICRUSt. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 3716-3725.	3.8	49
603	Solar hydrogen production from seawater splitting using mixed-valence titanium phosphite photocatalyst. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 104826.	3.3	9
604	Techno-economic analysis of H ₂ energy storage system based on renewable energy certificate. <i>Renewable Energy</i> , 2021, 167, 91-98.	4.3	11
605	Formate-Bicarbonate Cycle as a Vehicle for Hydrogen and Energy Storage. <i>ChemSusChem</i> , 2021, 14, 1258-1283.	3.6	31
606	A DFT study on enhanced adsorption of H ₂ on Be-decorated porous graphene nanosheet and the effects of applied electrical fields. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 5891-5903.	3.8	15
607	Nanostructured Metal Sulfides: Classification, Modification Strategy, and Solar-Driven CO ₂ Reduction Application. <i>Advanced Functional Materials</i> , 2021, 31, 2008008.	7.8	221
608	Graphene/graphene oxide-based nanomaterials for hydrogen production and storage applications. , 2021, , 97-116.		1
609	A review on self-sustainable microbial electrolysis cells for electro-biohydrogen production via coupling with carbon-neutral renewable energy technologies. <i>Bioresource Technology</i> , 2021, 320, 124363.	4.8	89
610	Regulation of the photogenerated carrier transfer process during photoelectrochemical water splitting: A review. <i>Green Energy and Environment</i> , 2021, 6, 479-495.	4.7	26
611	High-performance and cost-effective membrane electrode assemblies for advanced proton exchange membrane water electrolyzers: Long-term durability assessment. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 1526-1539.	3.8	18
612	Strontium titanate aided water splitting: An overview of current scenario. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 1879-1903.	3.8	20
613	Biomass-to-hydrogen: A review of main routes production, processes evaluation and techno-economical assessment. <i>Biomass and Bioenergy</i> , 2021, 144, 105920.	2.9	234
614	Development of a new solar photoelectrochemical reactor design for more efficient hydrogen production. <i>Energy Conversion and Management</i> , 2021, 228, 113714.	4.4	14
615	Hydrogen production by ammonia decomposition over ruthenium supported on SiC catalyst. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 94, 326-335.	2.9	35

#	ARTICLE	IF	CITATIONS
616	Influence of microalgae on synergism during co-pyrolysis with organic waste biomass: A thermogravimetric and kinetic analysis. <i>Renewable Energy</i> , 2021, 167, 42-55.	4.3	32
617	Advancing green energy solution with the impetus of COVID-19 pandemic. <i>Journal of Energy Chemistry</i> , 2021, 59, 688-705.	7.1	63
618	Dimethyl ether as circular hydrogen carrier: Catalytic aspects of hydrogenation/dehydrogenation steps. <i>Journal of Energy Chemistry</i> , 2021, 58, 55-77.	7.1	67
619	A highly active selenized nickel-iron electrode with layered double hydroxide for electrocatalytic water splitting in saline electrolyte. <i>Materials Today Energy</i> , 2021, 19, 100575.	2.5	25
620	Remarkable activity of Pd catalyst supported on alumina synthesized via a hydrothermal route for hydrogen release of perhydro-N-propylcarbazole. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 9718-9729.	3.8	12
621	Impact of microbial inoculum storage on dark fermentative H ₂ production. <i>Bioresource Technology</i> , 2021, 319, 124234.	4.8	19
622	Uncovering the true cost of hydrogen production routes using life cycle monetisation. <i>Applied Energy</i> , 2021, 281, 115958.	5.1	167
623	The free-standing nanoporous palladium for hydrogen isotope storage. <i>Journal of Alloys and Compounds</i> , 2021, 854, 157062.	2.8	11
624	Ruthenium(II) Complexes Bearing Schiff Base Ligands for Efficient Acceptorless Dehydrogenation of Secondary Alcohols. <i>Chinese Journal of Chemistry</i> , 2021, 39, 121-128.	2.6	16
625	Tuning the Photoelectrochemical Performance of Ru II Sensitized Two-Dimensional MoS ₂ . <i>Chemistry - A European Journal</i> , 2021, 27, 984-992.	1.7	3
626	Thermochemical routes for hydrogen production from biomass. , 2021, , 193-208.		6
627	Zinc Oxide Nanoparticles Coated with (3-Aminopropyl)triethoxysilane as Additives for Boosting the Dielectric, Ferroelectric, and Piezoelectric Properties of Poly(vinylidene fluoride) Films for Energy Harvesting. <i>ACS Applied Nano Materials</i> , 2021, 4, 1798-1809.	2.4	18
628	E-Mobility: Transportation Sector in Transition. , 2021, , 1-78.		1
629	Where do the electrons go? How numerous redox processes drive phytochemical diversity. <i>Phytochemistry Reviews</i> , 2021, 20, 367-407.	3.1	11
630	Emerging Energy Harvesting Technology for Electro/Photo-Catalytic Water Splitting Application. <i>Catalysts</i> , 2021, 11, 142.	1.6	24
631	Overview of Multi-criteria Decision Analysis and Its Applications on Energy Systems. <i>Green Energy and Technology</i> , 2021, , 1-26.	0.4	0
632	Sacrificial species approach to designing robust transition metal phosphide cathodes for alkaline water electrolysis in discontinuous operation. <i>Journal of Materials Chemistry A</i> , 2021, 9, 16713-16724.	5.2	13
633	M/TiO ₂ (M = Fe, Co, Ni, Cu, Zn) catalysts for photocatalytic hydrogen production under UV and visible light irradiation. <i>Inorganic Chemistry Frontiers</i> , 2021, 8, 3491-3500.	3.0	22

#	ARTICLE	IF	CITATIONS
634	Facile synthesis of bimetallic-based CoMoO ₄ /MoO ₂ /CoP oxidized/phosphide nanorod arrays electroplated with FeOOH for efficient overall seawater splitting. CrystEngComm, 2021, 23, 6778-6791.	1.3	4
635	Potentials of Hydrogen Technologies for Sustainable Factory Systems. Procedia CIRP, 2021, 98, 583-588.	1.0	9
636	Cerium oxide modified iridium nanorods for highly efficient electrochemical water splitting. Chemical Communications, 2021, 57, 8798-8801.	2.2	6
637	Challenges of Renewable Energy to Sustainable Development: Post-Coronavirus™ Economic Recovery Plan. Lecture Notes in Energy, 2021, , 37-56.	0.2	0
638	Hydrogen storage in incompletely etched multilayer Ti ₂ CTx at room temperature. Nature Nanotechnology, 2021, 16, 331-336.	15.6	145
639	Optimal Configuration of an Off-Grid Hybrid Wind-Hydrogen Energy System: Comparison of Two Systems. Energy Engineering: Journal of the Association of Energy Engineers, 2021, 118, 1641-1658.	0.3	1
640	The Role of Technological Development on Renewable Energy Usage. , 2021, , 1971-1988.		0
641	Ti ₄ -Decorated B/N-doped graphene as a high-capacity hydrogen storage material: a DFT study. Dalton Transactions, 2021, 50, 11398-11411.	1.6	7
642	Flame Pyrolysis Synthesis of Mixed Oxides for Glycerol Steam Reforming. Materials, 2021, 14, 652.	1.3	4
643	Doping regulation in transition metal compounds for electrocatalysis. Chemical Society Reviews, 2021, 50, 9817-9844.	18.7	245
644	Bioconversion of Hemicelluloses into Hydrogen. Advances in Science, Technology and Innovation, 2021, , 267-280.	0.2	1
645	Wireless Model for High Voltage Direct Current Measurement using Hall Sensor. , 2021, ,		11
646	Thermochemical processes for biohydrogen production. , 2021, , 139-177.		2
647	A Co-MOF-derived flower-like CoS@S,N-doped carbon matrix for highly efficient overall water splitting. RSC Advances, 2021, 11, 16823-16833.	1.7	20
648	Highly efficient H ₂ production and size-selective AgCl synthesis <i>via</i> electrolytic cell design. Journal of Materials Chemistry A, 2021, 9, 22871-22877.	5.2	2
649	Transition metal-based catalysts for electrochemical water splitting at high current density: current status and perspectives. Nanoscale, 2021, 13, 12788-12817.	2.8	142
650	Enhancing the efficiency of the hydrogen evolution reaction utilising Fe ₃ P bulk modified screen-printed electrodes <i>via</i> the application of a magnetic field. RSC Advances, 2021, 11, 8073-8079.	1.7	12
651	Insights of enhanced oxygen evolution reaction of nanostructured cobalt ferrite surface. Journal of Materials Science, 2021, 56, 8383-8395.	1.7	16

#	ARTICLE	IF	CITATIONS
652	Production of bio-hydrogen from bulgur processing industry wastewater. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-14.	1.2	8
653	Understanding the Structural Evolution of a Nickel Chalcogenide Electrocatalyst Surface for Water Oxidation. Energy & Fuels, 2021, 35, 4387-4403.	2.5	33
654	Energy-effective carbon dioxide capture and storage design in hydrogen production from liquefied natural gas. International Journal of Energy Research, 2021, 45, 9408-9421.	2.2	12
655	Experimental Determination of Water, Water/Ethylene Glycol and TiO ₂ -SiO ₂ Nanofluids mixture with Water/Ethylene Glycol to Three Square Multilayer Absorber Collector on Solar Water Heating System: A Comparative Investigation. IOP Conference Series: Materials Science and Engineering, 2021, 1062, 012019.	0.3	4
656	Molybdenum-Containing Metalloenzymes and Synthetic Catalysts for Conversion of Small Molecules. Catalysts, 2021, 11, 217.	1.6	3
657	Synthesis and characterization of SnO ₂ -modified ZSM-5 zeolite for hydrogen gas sensing. Materials Chemistry and Physics, 2021, 259, 124181.	2.0	16
658	Futuristic applications of hydrogen in energy, biorefining, aerospace, pharmaceuticals and metallurgy. International Journal of Hydrogen Energy, 2021, 46, 8885-8905.	3.8	190
659	Recent advances in catalyst-enhanced LiAlH ₄ for solid-state hydrogen storage: A review. International Journal of Hydrogen Energy, 2021, 46, 9123-9141.	3.8	68
660	Power Flow Management Algorithm for a Remote Microgrid Based on Artificial Intelligence Techniques. , 0, , .		1
661	Sulphonated (PVDF-co-HFP)-graphene oxide composite polymer electrolyte membrane for HI decomposition by electrolysis in thermochemical iodine-sulphur cycle for hydrogen production. International Journal of Hydrogen Energy, 2021, 46, 8852-8863.	3.8	11
662	Changes in the microstructural state of Ti-Al-Nb-based alloys depending on the temperature cycle during spark plasma sintering. Materialpruefung/Materials Testing, 2021, 63, 119-123.	0.8	10
663	Cd(II)-based metal-organic framework-derived CdS photocatalysts for enhancement of photocatalytic activity. Journal of Materials Science, 2021, 56, 8643-8657.	1.7	13
664	Fuel Cells Based on Natural Polysaccharides for Rail Vehicle Application. Energies, 2021, 14, 1144.	1.6	6
665	Electrodeposition of electrocatalytic coatings in systems based on deep eutectic solvents: a review. Voprosy Khimii I Khimicheskoi Tekhnologii, 2021, , 4-22.	0.1	3
666	Aged Co-Mo alloy thin film catalyst for hydrogen evolution reaction in acidic solution. Functional Materials Letters, 2021, 14, 2151018.	0.7	2
667	Effect of Keratin Extracted from Chicken Feather Filled Electrospun Polyacrylonitrile Nanocomposite Membrane. Key Engineering Materials, 0, 878, 9-14.	0.4	0
668	CO ₂ Hydrogenation to Methanol over Copper Catalysts: Learning from Syngas Conversion. Topics in Catalysis, 2021, 64, 974-983.	1.3	16
669	Recent development on self-supported transition metal-based catalysts for water electrolysis at large current density. Applied Materials Today, 2021, 22, 100913.	2.3	42

#	ARTICLE	IF	CITATIONS
671	Electrodeposited rhenium-cobalt alloy with high activity for acidic hydrogen evolution reaction. <i>Journal of Industrial and Engineering Chemistry</i> , 2021, 95, 357-366.	2.9	14
672	Lattice Mismatch in Ni ₃ Se ₄ -MoSe ₂ Nanoheterostructures with an Abundant Interface for Catalytic Hydrogen Evolution. <i>ACS Applied Nano Materials</i> , 2021, 4, 3493-3499.	2.4	18
673	Three-dimensional microstructural characterization of solid oxide electrolysis cell with Ce _{0.8} Gd _{0.2} O ₂ -infiltrated Ni/YSZ electrode using focused ion beam-scanning electron microscopy. <i>Journal of Solid State Electrochemistry</i> , 2021, 25, 1633-1644.	1.2	10
674	Not All Doom and Gloom: How Energy-Intensive and Temporally Flexible Data Center Applications May Actually Promote Renewable Energy Sources. <i>Business and Information Systems Engineering</i> , 2021, 63, 243-256.	4.0	13
675	The production and application of hydrogen in steel industry. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 10548-10569.	3.8	197
676	Ultrasonic-assisted synthesis of NiCo ₂ O ₄ /TiO ₂ ceramic as an efficient and novel hydrogen storage material. <i>Journal of the Iranian Chemical Society</i> , 2021, 18, 2613-2623.	1.2	2
677	Direct aromatization of CO ₂ via combined CO ₂ hydrogenation and zeolite-based acid catalysis. <i>Journal of CO₂ Utilization</i> , 2021, 45, 101405.	3.3	51
678	Multi-criteria sustainability assessment and decision-making framework for hydrogen pathways prioritization: An extended ELECTRE method under hybrid information. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 13430-13445.	3.8	21
679	Delivering carbon negative electricity, heat and hydrogen with BECCS – Comparing the options. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 15298-15321.	3.8	26
680	Effect of Emission Penalty and Annual Interest Rate on Cogeneration of Electricity, Heat, and Hydrogen in Karachi: 3E Assessment and Sensitivity Analysis. <i>Journal of Engineering (United States)</i> , 2021, 2021, 1-16.	0.5	11
681	Self-assembled ZIF-67@graphene oxide as a cobalt-based catalyst precursor with enhanced catalytic activity toward methanolysis of sodium borohydride. <i>Applied Surface Science</i> , 2021, 546, 149128.	3.1	66
682	Valorization of the aqueous phase produced from wet and dry thermochemical processing biomass: A review. <i>Journal of Cleaner Production</i> , 2021, 294, 126238.	4.6	48
683	Semi-conducting Ni/Zn nano-hybrids driven efficient electro-catalytic performance: fabrication, characterization, and electrochemical features elucidation. <i>Green Chemistry Letters and Reviews</i> , 2021, 14, 286-301.	2.1	18
684	Renewable Energy Deployment and COVID-19 Measures for Sustainable Development. <i>Sustainability</i> , 2021, 13, 4418.	1.6	59
685	Influence of CVD parameters on CoTiO ₂ /CNT properties: A route to enhance energy harvesting from sunlight. <i>International Journal of Applied Ceramic Technology</i> , 2021, 18, 1297-1306.	1.1	5
686	Numerical investigation of water and temperature distributions in a proton exchange membrane electrolysis cell. <i>Science China Technological Sciences</i> , 2021, 64, 1555-1566.	2.0	28
687	Thermo-economic analysis of Phosphoric Acid Fuel-Cell (PAFC) integrated with Organic Ranking Cycle (ORC). <i>Energy</i> , 2021, 220, 119744.	4.5	30
688	Comparison of different activated agents on biomass-derived graphene towards the hybrid nanocomposites with zeolitic imidazolate framework-8 for room temperature hydrogen storage. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105118.	3.3	9

#	ARTICLE	IF	CITATIONS
689	Densely Quaternized Fluorinated Poly(fluorenyl ether)s with Excellent Conductivity and Stability for Vanadium Redox Flow Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 18923-18933.	4.0	23
690	Evaluation of a new geothermal based multigenerational plant with primary outputs of hydrogen and ammonia. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 16344-16359.	3.8	31
691	Green electroless plating of cuprous oxide nanoparticles onto carbon nanotubes as efficient electrocatalysts for hydrogen evolution reaction. <i>Applied Surface Science</i> , 2021, 548, 149218.	3.1	11
692	Long-distance renewable hydrogen transmission via cables and pipelines. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 18699-18718.	3.8	53
693	Life cycle energy consumption by roads and associated interpretative analysis of sustainable policies. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 141, 110823.	8.2	52
694	Exploring the world of metal nitrides as hydrogen storage materials: a DFT study. <i>Chemical Papers</i> , 2021, 75, 4831.	1.0	3
695	Tuning hydrogen storage thermodynamic properties of ZrFe ₂ by partial substitution with rare earth element Y. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 18445-18452.	3.8	16
696	Pore diameters of Ni/ZrO ₂ catalysts affect properties of the coke in steam reforming of acetic acid. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 23642-23657.	3.8	19
697	Synthesis of biomass porous carbon materials from bean sprouts for hydrogen evolution reaction electrocatalysis and supercapacitor electrode. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 18887-18897.	3.8	44
698	Mechanochemical Synthesis of Pt/Nb ₂ CT _x MXene Composites for Enhanced Electrocatalytic Hydrogen Evolution. <i>Materials</i> , 2021, 14, 2426.	1.3	15
699	Photofermentative hydrogen production by immobilized photosynthetic bacteria: Current perspectives and challenges. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 141, 110796.	8.2	55
700	Cubane Ru ₄ (CO) ₈ cluster containing 4 pyridine-methanol ligands as a highly efficient photoelectrocatalyst for oxygen evolution reaction from water. <i>Journal of Organometallic Chemistry</i> , 2021, 940, 121769.	0.8	1
701	Effect of unsaturated coordination on photoelectrochemical properties of Ni-MOF/TiO ₂ photoanode for water splitting. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 17741-17750.	3.8	21
702	Life cycle and sustainability assessments of biorefineries producing glucaric acid, sorbitol or levulinic acid annexed to a sugar mill. <i>Journal of Cleaner Production</i> , 2021, 295, 126339.	4.6	16
703	An Overall Reaction Integrated with Highly Selective Oxidation of 5- <i>H</i> Hydroxymethylfurfural and Efficient Hydrogen Evolution. <i>Advanced Functional Materials</i> , 2021, 31, 2102886.	7.8	71
704	Metal-free Synthesis of Pyridyl Conjugated Microporous Polymers for Photocatalytic Hydrogen Evolution. <i>Chinese Journal of Polymer Science (English Edition)</i> , 2021, 39, 1004-1012.	2.0	13
705	Steam reforming of sugars: Roles of hydroxyl group and carbonyl group in coke formation. <i>Fuel</i> , 2021, 292, 120282.	3.4	11
706	Methodology for multi-objective optimization of wind turbine/battery/electrolyzer system for decentralized clean hydrogen production using an adapted power management strategy for low wind speed conditions. <i>Energy Conversion and Management</i> , 2021, 238, 114125.	4.4	62

#	ARTICLE	IF	CITATIONS
707	Short contact time CH ₄ partial oxidation over Ni based catalyst at 1.5 MPa. Chemical Engineering Journal, 2021, 414, 128831.	6.6	8
708	One-step synthesis of anionic S substitution toward Ni ₂ P (S) nanowires on nickel foam for enhanced hydrogen evolution reaction. International Journal of Energy Research, 2021, 45, 16973-16983.	2.2	4
709	Envisioning the UN Sustainable Development Goals (SDGs) through the lens of energy sustainability (SDG 7) in the post-COVID-19 world. Applied Energy, 2021, 292, 116665.	5.1	102
710	Electronic structure engineering through Fe-doping CoP enables hydrogen evolution coupled with electro-Fenton. Nano Energy, 2021, 84, 105943.	8.2	64
711	Remarkably fast low-temperature hydrogen storage into aromatic benzyltoluenes over MgO-supported Ru nanoparticles with homolytic and heterolytic H ₂ adsorption. Applied Catalysis B: Environmental, 2021, 286, 119889.	10.8	40
712	Storage of hydrogen, natural gas, and carbon dioxide – Geological and legal conditions. International Journal of Hydrogen Energy, 2021, 46, 20010-20022.	3.8	91
713	Facile Surface Laser Modification of Nickel Foams for Efficient Water Oxidation Electrocatalysis. ChemElectroChem, 2021, 8, 2124-2128.	1.7	2
714	Techno-economic analysis of hydrogen enhanced methanol to gasoline process from biomass-derived synthesis gas. Fuel Processing Technology, 2021, 216, 106776.	3.7	10
715	Active and stable Co catalysts supported on La-Si binary systems for H ₂ production through ethanol steam reforming. Fuel Processing Technology, 2021, 217, 106814.	3.7	16
716	Progress and prospects of hydrogen production: Opportunities and challenges. Journal of Electronic Science and Technology, 2021, 19, 100080.	2.0	102
717	Nitrogen and Phosphate Co-doped Graphene as Efficient Bifunctional Electrocatalysts by Precursor Modulation Strategy for Oxygen Reduction and Evolution Reactions. ChemElectroChem, 2021, 8, 3262-3272.	1.7	9
718	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
719	C ₇ N ₆ monolayer as high capacity and reversible hydrogen storage media: A DFT study. International Journal of Hydrogen Energy, 2021, 46, 21994-22003.	3.8	62
720	Photoelectrochemical Water-Splitting Using Cu-Based Electrodes for Hydrogen Production: A Review. Advanced Materials, 2021, 33, e2007285.	11.1	127
721	Y, Gd, and Pr tri-doped perovskite-type proton conducting electrolytes with improved sinterability and chemical stability. Journal of Alloys and Compounds, 2021, 870, 159431.	2.8	18
722	AlH ₃ as a hydrogen storage material: recent advances, prospects and challenges. Rare Metals, 2021, 40, 3337-3356.	3.6	40
723	Theoretical investigation of a multi-channel optical fiber surface plasmon resonance hydrogen sensor. Optics Communications, 2021, 490, 126916.	1.0	6
724	Availability, versatility, and viability of feedstocks for hydrogen production: Product space perspective. Renewable and Sustainable Energy Reviews, 2021, 145, 110843.	8.2	57

#	ARTICLE	IF	CITATIONS
725	A Na-ion direct formate fuel cell converting solar fuel to electricity and hydrogen. <i>Journal of Power Sources</i> , 2021, 499, 229960.	4.0	5
726	Optimal design of wind-powered hydrogen refuelling station for some selected cities of South Africa. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 24919-24930.	3.8	53
727	Measurement methods of carbohydrates in dark fermentative hydrogen production- A review. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 24028-24050.	3.8	12
728	Cobalt Telluride: A Highly Efficient Trifunctional Electrocatalyst for Water Splitting and Oxygen Reduction. <i>ACS Applied Energy Materials</i> , 2021, 4, 8158-8174.	2.5	36
729	Theoretical Investigation of HER Mechanism Using Density Functional and Ab Initio Calculations. <i>Bulletin of the Korean Chemical Society</i> , 2021, 42, 1289.	1.0	1
730	CoNiFe-LDHs decorated Ta ₃ N ₅ nanotube array photoanode for remarkably enhanced photoelectrochemical glycerol conversion coupled with hydrogen generation. <i>Nano Energy</i> , 2021, 89, 106326.	8.2	34
731	Energy and exergy analyses of a novel sulfur-iodine cycle assembled with HI-I ₂ -H ₂ O electrolysis for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 23139-23148.	3.8	11
732	Adapting Early Transition Metal and Nonmetallic Dopants on CoFe Oxyhydroxides for Enhanced Alkaline and Neutral pH Saline Water Oxidation. <i>ACS Applied Energy Materials</i> , 2021, 4, 6942-6956.	2.5	28
733	Mixotrophic Growth of <i>Chlorella sorokiniana</i> on Acetate and Butyrate: Interplay Between Substrate, C:N Ratio and pH. <i>Frontiers in Microbiology</i> , 2021, 12, 703614.	1.5	20
734	Study of the Hydrogen Storage Properties and Catalytic Mechanism of a MgH ₂ -Na ₃ AlH ₆ System Incorporating FeCl ₃ . <i>ACS Omega</i> , 2021, 6, 18948-18956.	1.6	8
735	Boosting solar driven hydrogen evolution rate of CdS nanorods adorned with MoS ₂ and SnS ₂ nanostructures. <i>Colloids and Interface Science Communications</i> , 2021, 43, 100437.	2.0	9
736	Oxygen permeability and stability of dual-phase Ce _{0.85} Pr _{0.15} O ₂ -Pr _{0.6} Sr _{0.4} Fe _{0.9} Al _{0.1} O ₃ - membrane for hydrogen production by water splitting. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 27307-27318.	3.8	8
737	A numerical investigation of CO ₂ gasification of biomass particles- analysis of energy, exergy and entropy generation. <i>Energy</i> , 2021, 228, 120615.	4.5	17
738	Role of Fe Species of Ni-Based Catalysts for Efficient Low-Temperature Ethanol Steam Reforming. <i>Jacs Au</i> , 2021, 1, 1459-1470.	3.6	29
739	Hydrogen-rich syngas from wet municipal solid waste gasification using Ni/Waste marble powder catalyst promoted by transition metals. <i>Waste Management</i> , 2021, 132, 96-104.	3.7	16
740	Hydrogen production via methane decomposition over nickel supported on synthesized ZSM-5/MCM-41 zeolite composite material. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 28501-28512.	3.8	24
741	Raney Ni as a Versatile Catalyst for Biomass Conversion. <i>ACS Catalysis</i> , 2021, 11, 10508-10536.	5.5	49
742	Directly sputtered nickel electrodes for alkaline water electrolysis. <i>Electrochimica Acta</i> , 2021, 386, 138458.	2.6	21

#	ARTICLE	IF	CITATIONS
743	Investigating influential effect of methanolâ€phenolâ€steam mixture on hydrogen production through thermodynamic analysis with experimental evaluation. International Journal of Energy Research, 2022, 46, 964-979.	2.2	9
744	Tracing Resistances of Anion Exchange Membrane Water Electrolyzer during Long-term Stability Tests. Journal of Electrochemical Science and Technology, 2021, 12, 358-364.	0.9	2
745	Process intensification for hydrogen production through glycerol steam reforming. Renewable and Sustainable Energy Reviews, 2021, 146, 111151.	8.2	36
746	Donorâ€Acceptorâ€Type Organicâ€Smallâ€Moleculeâ€Based Solarâ€Energyâ€Absorbing Material for Highly Efficient Water Evaporation and Thermoelectric Power Generation. Advanced Functional Materials, 2021, 31, 2106247.	7.8	46
747	Enhanced biohydrogen production by an ammonium-tolerant Rhodobacter capsulatus from sugarcane bagasse. Fuel, 2021, 300, 121009.	3.4	16
748	Highly Dispersed Mo₂C Nanodots in Carbon Nanocages Derived from Moâ€Based Xerogel: Efficient Electrocatalysts for Hydrogen Evolution. Small Methods, 2021, 5, e2100334.	4.6	26
749	Opportunities for green hydrogen production in petroleum refining and ammonia synthesis industries in India. International Journal of Hydrogen Energy, 2021, 46, 38212-38231.	3.8	55
750	Hydrogen production in the light of sustainability: A comparative study on the hydrogen production technologies using the sustainability index assessment method. Nuclear Engineering and Technology, 2022, 54, 1288-1294.	1.1	18
751	Ab initio calculations of structural, electronic and lattice dynamical properties of YMgNi4Hx (x=0, 1) Tj ETQq0 0 0 rgBT /Overlap 10 Tf 5	8.9	10
752	Rational design of multifunctional electrocatalyst: An approach towards efficient overall water splitting and rechargeable flexible solid-state zincâ€air battery. Applied Catalysis B: Environmental, 2022, 300, 120752.	10.8	150
753	Integrative techno-economic and environmental assessment for green H2 production by alkaline water electrolysis based on experimental data. Journal of Environmental Chemical Engineering, 2021, 9, 106349.	3.3	40
754	Glycine-induced ultrahigh-surface-area IrO2@IrOx catalyst with balanced activity and stability for efficient water splitting. Electrochimica Acta, 2021, 390, 138885.	2.6	15
755	Design and theoretical analysis of a liquid piston hydrogen compressor. Journal of Energy Storage, 2021, 41, 102861.	3.9	16
756	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
757	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
758	Hydrogen Production by Methane Pyrolysis in a Moltenâ€Metal Bubble Column. Chemical Engineering and Technology, 2021, 44, 1986-1993.	0.9	26
759	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
760	Catalyst-coated proton exchange membrane for hydrogen production with high pressure water electrolysis. Applied Physics Letters, 2021, 119, .	1.5	7

#	ARTICLE	IF	CITATIONS
761	Scalable production of intrinsic WX ₂ (X=As, Se, Te) quantum sheets for efficient hydrogen evolution electrocatalysis. <i>Nanotechnology</i> , 2021, 32, 495701.	1.3	10
762	Role of hydrogen in improving performance and emission characteristics of homogeneous charge compression ignition engine fueled with graphite oxide nanoparticle-added microalgae biodiesel/diesel blends. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 37617-37634.	3.8	91
763	New bifunctional carbon material of metal-free pomegranate peel catalyst and supercapacitor for highly efficient hydrogen production and energy storage. <i>International Journal of Energy Research</i> , 2022, 46, 1789-1802.	2.2	13
764	Green hydrogen and electrical power production through the integration of CO ₂ capturing from biogas: Process optimization and dynamic control. <i>Energy Reports</i> , 2021, 7, 293-307.	2.5	9
765	Parametric Study for Thermal and Catalytic Methane Pyrolysis for Hydrogen Production: Techno-Economic and Scenario Analysis. <i>Energies</i> , 2021, 14, 6102.	1.6	10
766	Is mass-scale electrocatalysis of aqueous methanol an energetically and economically viable option for hydrogen production?. <i>Journal of Industrial and Engineering Chemistry</i> , 2022, 105, 58-62.	2.9	7
768	Interfacing with Fe-N-C Sites Boosts the Formic Acid Dehydrogenation of Palladium Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 46749-46755.	4.0	21
769	System Theoretical Study on the Effect of Variable Nonmetallic Doping on Improving Catalytic Activity of 2D-Ti ₃ C ₂ O ₂ for Hydrogen Evolution Reaction. <i>Nanomaterials</i> , 2021, 11, 2497.	1.9	6
770	Emerging Photocatalysts for Hydrogen Production. <i>Green Chemistry and Sustainable Technology</i> , 2022, , 647-671.	0.4	1
771	Supported Plasmonic Nanocatalysts for Hydrogen Production by Wet and Dry Photoreforming of Biomass and Biogas Derived Compounds: Recent Progress and Future Perspectives. <i>ChemCatChem</i> , 2021, 13, 4458-4496.	1.8	14
772	Stratified and Hydrogen Combustion Techniques for Higher Turndown and Lower Emissions in Gas Turbines. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2022, 144, .	1.4	11
773	Time-Resolved Spectroscopy and High-Efficiency Light-Driven Hydrogen Evolution of a {Mo ₃ S ₄ } ⁻ -Containing Polyoxometalate-Based System. <i>Chemistry - A European Journal</i> , 2021, 27, 17094-17103.	1.7	7
774	Material libraries for electrocatalytic overall water splitting. <i>Coordination Chemistry Reviews</i> , 2021, 444, 214049.	9.5	123
775	Hydrogen production at centralized utilization of agricultural waste. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 34089-34096.	3.8	14
776	Tuning the dehydrogenation performance of dibenzyl toluene as liquid organic hydrogen carriers. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 34788-34796.	3.8	7
777	Ammonia as a carrier for hydrogen production by using lanthanum based perovskites. <i>Energy Conversion and Management</i> , 2021, 246, 114681.	4.4	22
778	Arming wood carbon with carbon-coated mesoporous nickel-silica nanolayer as monolithic composite catalyst for steam reforming of toluene. <i>Journal of Colloid and Interface Science</i> , 2021, 599, 650-660.	5.0	16
779	Hydrogen molecule capacity physisorption on BC ₃ monolayer: First-principles calculations. <i>Diamond and Related Materials</i> , 2021, 119, 108583.	1.8	15

#	ARTICLE	IF	CITATIONS
780	Renewable-based zero-carbon fuels for the use of power generation: A case study in Malaysia supported by updated developments worldwide. <i>Energy Reports</i> , 2021, 7, 1986-2020.	2.5	36
781	Sustainable hydrogen production by plasmonic thermophotocatalysis. <i>Catalysis Today</i> , 2021, 380, 156-186.	2.2	39
782	Latest progress on the key operating parameters affecting the photocatalytic activity of TiO ₂ -based photocatalysts for hydrogen fuel production: A comprehensive review. <i>Fuel</i> , 2021, 303, 121207.	3.4	114
783	Lattice strain and atomic replacement of CoO ₆ octahedra in layered sodium cobalt oxide for boosted water oxidation electrocatalysis. <i>Applied Catalysis B: Environmental</i> , 2021, 297, 120477.	10.8	30
784	Carbon nanofiber-supported tantalum oxides as durable catalyst for the oxygen evolution reaction in alkaline media. <i>Renewable Energy</i> , 2021, 178, 307-317.	4.3	13
785	Multi-criteria decision approach to select carbon dioxide and hydrogen sources as potential raw materials for the production of chemicals. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 151, 111542.	8.2	18
786	Enhanced hydrogen storage of a LaNi ₅ based reactor by using phase change materials. <i>Renewable Energy</i> , 2021, 180, 734-743.	4.3	33
787	Biohydrogen from organic wastes as a clean and environment-friendly energy source: Production pathways, feedstock types, and future prospects. <i>Bioresource Technology</i> , 2021, 342, 126021.	4.8	68
788	Two novel Co (II) bifunctional MOFs: Syntheses and applications in photocatalytic degradation of dyes and electrocatalytic water oxidation. <i>Journal of Solid State Chemistry</i> , 2021, 304, 122562.	1.4	13
789	Optimal design and techno-economic assessment of low-carbon hydrogen supply pathways for a refueling station located in Shanghai. <i>Energy</i> , 2021, 237, 121584.	4.5	41
790	Optimizing the nickel boride layer thickness in a spectroelectrochemical ATR-FTIR thin-film flow cell applied in glycerol oxidation. <i>Chinese Journal of Catalysis</i> , 2021, 42, 2206-2215.	6.9	5
791	Bioprocesses for the recovery of bioenergy and value-added products from wastewater: A review. <i>Journal of Environmental Management</i> , 2021, 300, 113831.	3.8	21
792	Constructing accelerated charge transfer channels along V-Co-Fe via introduction of V into CoFe-layered double hydroxides for overall water splitting. <i>Applied Catalysis B: Environmental</i> , 2021, 298, 120587.	10.8	52
793	Catalytic systems mimicking the [FeFe]-hydrogenase active site for visible-light-driven hydrogen production. <i>Coordination Chemistry Reviews</i> , 2021, 448, 214172.	9.5	38
794	Steam reforming of sugar and its derivatives: Functionality dictates thermal properties and morphologies of coke. <i>Fuel</i> , 2022, 307, 121798.	3.4	9
795	Review of the backfire occurrences and control strategies for port hydrogen injection internal combustion engines. <i>Fuel</i> , 2022, 307, 121553.	3.4	127
796	Evolution of intrinsic 1-3D WO ₃ nanostructures: Tailoring their phase structure and morphology for robust hydrogen evolution reaction. <i>Chemical Engineering Journal</i> , 2022, 428, 132013.	6.6	15
797	Optimal design and thermodynamic analysis on the hydrogen oxidation reactor in a combined hydrogen production and power generation system based on coal gasification in supercritical water. <i>Energy</i> , 2022, 238, 121862.	4.5	13

#	ARTICLE	IF	CITATIONS
798	%100 Yenilenebilir Enerjiye GeÃ§iÅ Yolunda DÃ¼nya ve TÃ¼rkiye. European Journal of Science and Technology, 0, , .	0.5	2
799	Metal-organic frameworkâ€“based materials and renewable energy. , 2021, , 153-166.		0
800	Electron Conduction Channel of Silver Nanowire Modified TiOâ„, Photoanode for Improvement of Interface Impedance of Dye-Sensitized Solar Cell. IEEE Journal of the Electron Devices Society, 2021, 9, 250-256.	1.2	8
801	Recent advances in hydrogenation of CO ₂ into hydrocarbons <i>via</i> methanol intermediate over heterogeneous catalysts. Catalysis Science and Technology, 2021, 11, 1665-1697.	2.1	64
802	Analysis of sodium generation by sodium oxide decomposition on corrosion resistance materials: a new approach towards sodium redox water-splitting cycle. RSC Advances, 2021, 11, 21017-21022.	1.7	3
803	Application of nanotechnology for the sustainable development of algal biofuel industries. , 2021, , 401-410.		5
804	Energy Storage Systems. Advances in Computer and Electrical Engineering Book Series, 2021, , 105-138.	0.2	0
805	Current Status of Water Electrolysis for Energy Storage. , 2022, , 533-552.		2
806	Designing an efficient bifunctional electrocatalyst heterostructure. Chemical Communications, 2021, 57, 9426-9429.	2.2	8
807	Nanomaterials for the conversion of carbon dioxide into renewable fuels. , 2021, , 1-20.		0
808	Hydrogen Production From Waste and Renewable Resources. Advances in Computer and Electrical Engineering Book Series, 2021, , 22-46.	0.2	4
809	One-step synthesis of graphitic carbon-nitride doped with black-red phosphorus as a novel, efficient and free-metal bifunctional catalyst and its application for electrochemical overall water splitting. Sustainable Energy and Fuels, 2021, 5, 3229-3239.	2.5	11
810	Multielement synergetic effect of NiFe ₂ O ₄ and h-BN for improving the dehydrogenation properties of LiAlH ₄ . Inorganic Chemistry Frontiers, 2021, 8, 3111-3126.	3.0	16
811	Thermostable carbon-supported subnanometer-sized ($\leq 1\text{ nm}$) Pt clusters for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2021, 9, 21972-21980.	5.2	13
812	Renewable Biomass Wastes for Biohydrogen Production. , 2022, , 273-298.		2
813	Designing Self-Supported Metal-Organic Framework Derived Catalysts for Electrochemical Water Splitting. Chemistry - an Asian Journal, 2020, 15, 607-623.	1.7	48
814	Production routes of advanced renewable C_1 to C_4 alcohols as biofuel components â€“ a review. Biofuels, Bioproducts and Biorefining, 2020, 14, 845-878.	1.9	41
815	Nickel-based Catalysts for High-temperature Water Gas Shift Reactionâ€“Methane Suppression. ChemCatChem, 2018, 10, 3927-3942.	1.8	75

#	ARTICLE	IF	CITATIONS
816	Biohydrogen Production. , 2019, , 865-904.		1
817	Interface Chemistry of Platinum-Based Materials for Electrocatalytic Hydrogen Evolution in Alkaline Conditions. , 2020, , 453-473.		3
818	Performance and Controlling Regimes Analysis of Methane Steam Reforming on Ru/ γ -Al ₂ O ₃ Cordierite Monoliths. Green Energy and Technology, 2021, , 91-131.	0.4	2
819	Algal Bioeconomy: A Platform for Clean Energy and Fuel. Clean Energy Production Technologies, 2020, , 335-370.	0.3	3
820	Hydrogen production from ammonia borane hydrolysis catalyzed by non-noble metal-based materials: a review. Journal of Materials Science, 2021, 56, 2856-2878.	1.7	27
821	Three-dimensional hierarchical Co(OH)F nanosheet arrays decorated by single-atom Ru for boosting oxygen evolution reaction. Science China Materials, 2021, 64, 1408-1417.	3.5	25
822	A Techno-Economic Feasibility Analysis of an Autonomous Hybrid Renewable Energy Sources for University Building at Saudi Arabia. Journal of Electrical Engineering and Technology, 2020, 15, 2519-2527.	1.2	55
823	Hydrogen production via a two-step water splitting thermochemical cycle based on metal oxide – A review. Applied Energy, 2020, 267, 114860.	5.1	79
824	Hydrogen oxidizing bacteria are capable of removing orthophosphate to ultra-low concentrations in a fed batch reactor configuration. Bioresource Technology, 2020, 311, 123494.	4.8	9
825	Analysis of the effect of different hydrogen/diesel ratios on the performance and emissions of a modified compression ignition engine under dual-fuel mode with water injection. Hydrogen-diesel dual-fuel mode. Energy, 2019, 172, 702-711.	4.5	25
826	Ammonia oxidation features in a Jet Stirred Flow Reactor. The role of NH ₂ chemistry.. Fuel, 2020, 276, 118054.	3.4	44
827	Rational design and fabrication of surface tailored low dimensional Indium Gallium Nitride for photoelectrochemical water cleavage. International Journal of Hydrogen Energy, 2020, 45, 8198-8222.	3.8	8
828	Combined steam and CO ₂ reforming of CH ₄ for syngas production in a gliding arc discharge plasma. Journal of CO ₂ Utilization, 2020, 37, 248-259.	3.3	45
829	A comprehensive evaluation of hydrogen production from photovoltaic power station. Renewable and Sustainable Energy Reviews, 2018, 82, 415-423.	8.2	68
830	Recent Advances in Photocatalytic Materials for Solar Fuel Production from Water and Carbon Dioxide. RSC Energy and Environment Series, 2020, , 80-115.	0.2	2
831	Review – Recent Advance in Self-Supported Electrocatalysts for Rechargeable Zinc-Air Batteries. Journal of the Electrochemical Society, 2020, 167, 110564.	1.3	21
832	Enhanced biohydrogen production from cotton stalk hydrolysate of Enterobacter cloacae WL1318 by overexpression of the formate hydrogen lyase activator gene. Biotechnology for Biofuels, 2020, 13, 94.	6.2	20
833	Effect of Temperature on the Performance Factors and Durability of Proton Exchange Membrane of Hydrogen Fuel Cell: A Narrative Review. Material Science Research India, 2020, 17, 179-191.	0.9	16

#	ARTICLE	IF	CITATIONS
834	Hypersensitive H ₂ sensor based on polymer planar Bragg gratings coated with Pt-loaded WO ₃ -SiO ₂ . Optics Letters, 2020, 45, 3601.	1.7	11
835	Investigation of Process Parameters Influence on Municipal Solid Waste Gasification with CO ₂ Capture via Process Simulation Approach. International Journal of Renewable Energy Development, 2021, 10, 1-10.	1.2	13
836	Electrocatalytic Activities of Macro- Porous Nickel Electrode for Hydrogen Evolution Reaction in Alkaline Media. Egyptian Journal of Chemistry, 2018, .	0.1	2
837	A Review of Renewable Energy Options, Applications, Facilitating Technologies and Recent Developments. European Journal of Sustainable Development Research, 2020, 4, em0138.	0.4	9
838	MoS ₂ /CNFs derived from Electrospinning and Heat treatment as the Efficient Electrocatalyst for Hydrogen Evolution Reaction in Acidic Solution. Journal of Korean Institute of Metals and Materials, 2018, 56, 885-892.	0.4	8
839	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
840	The Role of Technological Development on Renewable Energy Usage. Advances in Logistics, Operations, and Management Science Book Series, 2020, , 136-153.	0.3	29
841	Hydrogen Production Technologies: From Fossil Fuels toward Renewable Sources. A Mini Review. Energy & Fuels, 2021, 35, 16403-16415.	2.5	286
842	Membrane-Based Electrolysis for Hydrogen Production: A Review. Membranes, 2021, 11, 810.	1.4	51
843	H_2 A nanocluster-based hydrogen storage material. International Journal of Hydrogen Energy, 2022, 47, 420-427.	1.4	1
844	Study of the activity of a novel green catalyst used in the production of hydrogen from methanolysis of sodium borohydride. MANAS: Journal of Engineering, 2021, 9, 115-121.	0.4	6
845	Facile Synthesis of Copper Oxide-Cobalt Oxide/Nitrogen-Doped Carbon (Cu ₂ O-Co ₃ O ₄ /CN) Composite for Efficient Water Splitting. Applied Sciences (Switzerland), 2021, 11, 9974.	1.3	25
846	Improving feeding profile strategy for hydrogen production by <i>Cyanotheca</i> sp. ATCC 51142 using meta-heuristic methods. Chemical Engineering Communications, 2023, 210, 1-15.	1.5	4
847	Photoelectrochemical water splitting process using titanium dioxide photocatalyst: A brief overview. Nigerian Journal of Basic and Medical Science, 2021, 1, 26-35.	0.3	0
848	Multi-dimensional applications of graphitic carbon nitride nanomaterials – A review. Journal of Molecular Liquids, 2021, 344, 117820.	2.3	46
849	Recent progress on bimetallic NiCo and CoFe based electrocatalysts for alkaline oxygen evolution reaction: A review. Journal of Energy Chemistry, 2022, 67, 101-137.	7.1	109
850	3D Printed Scaffolds for Monolithic Aerogel Photocatalysts with Complex Geometries. Small, 2021, 17, e2104089.	5.2	17
851	Review and comparison of various hydrogen production methods based on costs and life cycle impact assessment indicators. International Journal of Hydrogen Energy, 2021, 46, 38612-38635.	3.8	278

#	ARTICLE	IF	CITATIONS
852	Biohydrogen Production. , 2018, , 1-40.		0
853	Methods of Biohydrogen Production and Usage of Bioreactors for Biohydrogen Production. Journal of the Institute of Science and Technology, 0, , 66-75.	0.3	4
854	Thermo-Analytical Characterization of Various Biomass Feedstocks for Assessments of Light Gaseous Compounds and Solid Residues. Lecture Notes in Networks and Systems, 2020, , 139-165.	0.5	0
855	Reaktör Tiplerinin ve Parametrelerinin Steam Reforming Prosesiyle Etanolden Hidrojen Üçeretine Etkisinin Aspen Plus ile Analizlenmesi. Ankara Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, 0, , 193-202.	0.1	1
856	Potential reversible and high-capacity hydrogen storage medium: Li-decorated B3S monolayers. Materials Today Communications, 2021, 29, 102938.	0.9	12
857	Optimal Configuration of the Integrated Charging Station for PV and Hydrogen Storage. Energies, 2021, 14, 7087.	1.6	10
858	Overview of hydrogen compression materials based on a three-stage metal hydride hydrogen compressor. Journal of Alloys and Compounds, 2022, 895, 162465.	2.8	33
859	Contemporary Dimensions of Econometrics of Green Energy: A Review of Literature. , 2020, , 165-188.		2
860	Modeling and Optimal Control of a Hydrogen Storage System for Wind Farm Output Power Smoothing. , 2020, , .		7
861	Unveiling the role of 2D monolayer Mn-doped MoS ₂ material: toward an efficient electrocatalyst for H ₂ evolution reaction. Physical Chemistry Chemical Physics, 2021, 24, 265-280.	1.3	21
862	Current trends and perspectives on emerging Fe-derived noble-metal-free oxygen electrocatalysts. New Journal of Chemistry, 2021, 45, 22012-22033.	1.4	7
863	Pd/Ni nanowire film coated SAW hydrogen sensor with fast response. Sensors and Actuators B: Chemical, 2022, 351, 130952.	4.0	19
864	Recent development in sustainable technologies for clean hydrogen evolution: Current scenario and future perspectives. , 2022, , 97-130.		2
865	The function of porous working electrodes for hydrogen production from water splitting in non-thermal plasma reactor. Fuel, 2022, 310, 122156.	3.4	5
866	Kinetic study of CO ₂ hydrogenation on Ru/YSZ catalyst using a monolithic electropromoted reactor (MEPR). Chemical Engineering Journal, 2022, 430, 132967.	6.6	9
867	Hydrogen Gas Measurements. , 2020, , 45-51.		0
868	Solar Fuels via Two-Step Thermochemical Redox Cycles. Green Energy and Technology, 2020, , 31-84.	0.4	2
869	Hydrogen and Fuel Cells in Transport Road, Rail, Air, and Sea. , 2020, , .		2

#	ARTICLE	IF	CITATIONS
870	Investigation of Hydrogen Production from Bio-Oil Substances Using Aspen Plus. Gazi University Journal of Science, 2020, 33, 14-20.	0.6	1
872	Petroleum Sector-Driven Roadmap for Future Hydrogen Economy. Applied Sciences (Switzerland), 2021, 11, 10389.	1.3	6
873	Hydrogen Diffusivity in Different Microstructures of 42CrMo4 Steel. Hydrogen, 2021, 2, 414-427.	1.7	2
874	Thermal management of metal hydride hydrogen storage using phase change materials for standalone solar hydrogen systems: An energy/exergy investigation. International Journal of Hydrogen Energy, 2022, 47, 1735-1751.	3.8	29
875	In Situ Construction of Nickel Sulfide Nano-Heterostructures for Highly Efficient Overall Urea Electrolysis. ACS Sustainable Chemistry and Engineering, 2021, 9, 15582-15590.	3.2	17
876	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
877	High Efficiency of Food Waste Fermentation and Biohydrogen Production in Experimental-industrial Anaerobic Batch Reactor. Open Agriculture Journal, 2020, 14, 174-186.	0.3	5
878	Development and test of a highly sensitive and selective hydrogen sensor system. Journal of Sensors and Sensor Systems, 2020, 9, 309-317.	0.6	0
879	Extraction and modification of hemicellulose from lignocellulosic biomass: A review. Green Processing and Synthesis, 2021, 10, 779-804.	1.3	55
880	Ideal scheme selection of an integrated conventional and renewable energy system combining multi-objective optimization and matching performance analysis. Energy Conversion and Management, 2022, 251, 114989.	4.4	34
881	“Clean” hydrogen? “Comparing the emissions and costs of fossil fuel versus renewable electricity based hydrogen. Applied Energy, 2022, 306, 118145.	5.1	100
882	Aerosol-Assisted Chemical Vapor Deposition Growth of NiMoO ₄ Nanoflowers on Nickel Foam as Effective Electrocatalysts toward Water Oxidation. ACS Omega, 2021, 6, 31339-31347.	1.6	17
883	Recent Advances in Liquid Organic Hydrogen Carriers: An Alcohol-Based Hydrogen Economy. ACS Catalysis, 2021, 11, 14712-14726.	5.5	45
884	Bio-hydrogen production from steam reforming of liquid biomass wastes and biomass-derived oxygenates: A review. Fuel, 2022, 311, 122623.	3.4	29
885	Hydrogen photo-production from glycerol on platinum, gold and silver-modified TiO ₂ -USY62 catalysts. Catalysis Today, 2022, 390-391, 92-98.	2.2	7
886	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
887	Promoting dark fermentation for biohydrogen production: Potential roles of iron-based additives. International Journal of Hydrogen Energy, 2022, 47, 1499-1515.	3.8	35
888	Limitations of Ammonia as a Hydrogen Energy Carrier for the Transportation Sector. ACS Energy Letters, 2021, 6, 4390-4394.	8.8	115

#	ARTICLE	IF	CITATIONS
889	Recent advancements on non-platinum based catalyst electrode material for polymer electrolyte membrane fuel cells: a mini techno-economic review. <i>Bulletin of Materials Science</i> , 2021, 44, 1.	0.8	19
890	Tuning the Electronic Structure of the CoP/Ni ₂ P Nanostructure by Nitrogen Doping for an Efficient Hydrogen Evolution Reaction in Alkaline Media. <i>Inorganic Chemistry</i> , 2021, 60, 18544-18552.	1.9	10
891	Projected cost analysis of hybrid methanol production from tri-reforming of methane integrated with various water electrolysis systems: Technical and economic assessment. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 155, 111876.	8.2	10
892	Î ² -Mo ₂ C Nanoparticles Produced by Carburization of Molybdenum Oxides with Carbon Black under Microwave Irradiation for Electrocatalytic Hydrogen Evolution Reaction. <i>ACS Applied Nano Materials</i> , 2021, 4, 12270-12277.	2.4	15
893	Machine learning approaches to rediscovery and optimization of hydrogen storage on porous bio-derived carbon. <i>Journal of Cleaner Production</i> , 2021, 329, 129714.	4.6	27
894	Studies on evaluation of surfactant coupled sonication pretreatment on <i>Ulva fasciata</i> (marine) Tj ETQq1 1 0.784314 rgBT / Overlock 10	3.8	20
895	Energy consumption, environmental performance, and techno-economic feasibility analysis of the biomass-to-hydrogen process with and without carbon capture and storage. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 106752.	3.3	21
896	Computational modeling of green hydrogen generation from photocatalytic H ₂ S splitting: Overview and perspectives. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2021, 49, 100456.	5.6	15
897	High hydrogen production in the InSe/MoSi ₂ N ₄ van der Waals heterostructure for overall water splitting. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 2110-2117.	1.3	16
899	Gas Crossover Regulation by Porosityâ€Controlled Glass Sheet Achieves Pure Hydrogen Production by Buffered Water Electrolysis at Neutral pH. <i>ChemSusChem</i> , 2022, 15, e202102294.	3.6	13
900	Investigation of structural, electronic and lattice dynamical properties of YMgNi ₄ H ₄ cubic and orthorhombic for hydrogen storage applications. <i>Materials Chemistry and Physics</i> , 2022, 278, 125614.	2.0	0
901	A comprehensive review of solid oxide fuel cells operating on various promising alternative fuels. <i>Energy Conversion and Management</i> , 2022, 253, 115175.	4.4	117
902	Conditioning the volatile stream from biomass fast pyrolysis for the attenuation of steam reforming catalyst deactivation. <i>Fuel</i> , 2022, 312, 122910.	3.4	22
903	Prediction of heat and mass transfer within a metal-hydrogen reactor using the unstructured Lattice Boltzmann Method. , 2020, , .		0
904	Research Front and Trend Analysis of Hydrogen Based Integrated Energy System by CiteSpace. , 2021, , .		0
905	Experimental investigation of polysulfone modified cellulose acetate membrane for CO ₂ /H ₂ gas separation. <i>Korean Journal of Chemical Engineering</i> , 2022, 39, 189-197.	1.2	11
906	Hydrogen Energy Demand Growth Prediction and Assessment (2021â€2050) Using a System Thinking and System Dynamics Approach. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 781.	1.3	52
907	Graphitic carbon nitride (gâ€C ₃ N ₄)â€based semiconductor as a beneficial candidate in photocatalysis diversity. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 5142-5191.	3.8	65

#	ARTICLE	IF	CITATIONS
908	Power Generation Analysis of Terrestrial Ultraviolet-Assisted Solid Oxide Electrolyzer Cell. <i>Energies</i> , 2022, 15, 996.	1.6	0
909	Perspective on the hydrogen economy as a pathway to reach net-zero CO ₂ emissions in Europe. <i>Energy and Environmental Science</i> , 2022, 15, 1034-1077.	15.6	132
910	Rapid mass production of iron nickel oxalate nanorods for efficient oxygen evolution reaction catalysis. <i>New Journal of Chemistry</i> , 2021, 46, 328-333.	1.4	3
911	Waste-to-hydrogen technologies: A critical review of techno-economic and socio-environmental sustainability. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 5842-5870.	3.8	44
912	Research on the Concept of Hydrogen Supply Chains and Power Grids Powered by Renewable Energy Sources: A Scoping Review with the Use of Text Mining. <i>Energies</i> , 2022, 15, 866.	1.6	13
913	Mode-division and spatial-division optical fiber sensors. <i>Advances in Optics and Photonics</i> , 2022, 14, 1.	12.1	37
914	Current status, research gaps, and future scope for nanomaterials toward visible light photocatalysis. , 2022, , 569-608.		0
915	Multi-Objective Optimal Design of a Hydrogen Supply Chain Powered with Agro-Industrial Wastes from the Sugarcane Industry: A Mexican Case Study. <i>Mathematics</i> , 2022, 10, 437.	1.1	11
916	High hydrogen release by cryo-adsorption and compression on porous materials. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 8892-8915.	3.8	18
917	Novel coal-to-methanol process with near-zero carbon emission: Pulverized coal gasification-integrated green hydrogen process. <i>Journal of Cleaner Production</i> , 2022, 339, 130500.	4.6	34
918	Efficient Hydrolytic Hydrogen Evolution from Sodium Borohydride Catalyzed by Polymer Immobilized Ionic Liquid-Stabilized Platinum Nanoparticles. <i>ChemCatChem</i> , 2022, 14, .	1.8	11
919	Control of textural property in spherical alumina ball for enhanced catalytic activity of Ni-supported Al ₂ O ₃ catalyst in steam-methane reforming. <i>Journal of Industrial and Engineering Chemistry</i> , 2022, 108, 400-410.	2.9	2
920	A Critical Review of Renewable Hydrogen Production Methods: Factors Affecting Their Scale-Up and Its Role in Future Energy Generation. <i>Membranes</i> , 2022, 12, 173.	1.4	113
921	Prioritization of solar electricity and hydrogen co-production stations considering PV losses and different types of solar trackers: A TOPSIS approach. <i>Renewable Energy</i> , 2022, 186, 889-903.	4.3	24
922	Oxygen-deficient non-crystalline tungsten oxide thin films for solar-driven water oxidation. <i>Journal of Non-Crystalline Solids</i> , 2022, 580, 121409.	1.5	5
923	Multi-period optimization of hydrogen supply chain utilizing natural gas pipelines and byproduct hydrogen. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 157, 112083.	8.2	23
924	Effect of pharmaceutical wastewater as nitrogen source on the optimization of simultaneous saccharification and fermentation hydrogen production from paper mill sludge. <i>Sustainable Chemistry and Pharmacy</i> , 2022, 25, 100619.	1.6	4
925	A design methodology of large-scale metal hydride reactor based on schematization for hydrogen storage. <i>Journal of Energy Storage</i> , 2022, 49, 104047.	3.9	10

#	ARTICLE	IF	CITATIONS
926	Impact of COVID-19 on the Renewable Energy Sector and Mitigation Strategies. <i>Chemical Engineering and Technology</i> , 2022, 45, 558-571.	0.9	33
927	Permeability and stability enhancement of dual-phase membrane by nickel-based porous layer for water splitting. <i>Ceramics International</i> , 2022, 48, 14662-14671.	2.3	5
928	Sustainable hydrogen production: Technological advancements and economic analysis. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 37227-37255.	3.8	70
929	Sequential separation-driven solar methane reforming for H ₂ derivation under mild conditions. <i>Energy and Environmental Science</i> , 2022, 15, 1861-1871.	15.6	27
930	Regulation of Co ₃ O ₄ /Co Hetero-Structures Embedded in N-Doped Porous Carbon as High-Efficient Catalysts for Dehydrogenation of Ammonia Borane. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
932	Fe-Doped CoFe-P Phosphides Nanosheets Dispersed on Nickel Foam Derived from Prussian Blue Analogues as Efficient Electrocatalysts for the Oxygen Evolution Reaction. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
933	Influence of hydrogen on the fatigue crack growth rate of 42CrMo4 steel welds: a comparison between pre-charge and in-situ testing. <i>Procedia Structural Integrity</i> , 2022, 39, 128-138.	0.3	3
934	Perovskites for protonic ceramic fuel cells: a review. <i>Energy and Environmental Science</i> , 2022, 15, 2200-2232.	15.6	87
935	SAW sensor employing Pd/Ni nanowire for super-fast hydrogen detection at room temperature. <i>Results in Chemistry</i> , 2022, 4, 100327.	0.9	0
936	Advances in the Induction of Photosynthetic Mutants of Microalgae. <i>Bioprocess</i> , 2022, 12, 26-31.	0.1	0
937	Assessment of Pilot-Plant Scale Solar Photocatalytic Hydrogen Generation with Multiple Approaches: Valorisation, Water Decontamination and Disinfection. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
938	Piezocatalytic and doping effects synergistically enhance the oxygen evolution in Sb-doped zinc oxide nanorod arrays as a photoanode for photoelectrochemical water splitting. <i>MRS Energy & Sustainability</i> , 2022, 9, 19-27.	1.3	1
939	Production of Jet Biofuels by Catalytic Hydroprocessing of Esters and Fatty Acids: A Review. <i>Catalysts</i> , 2022, 12, 237.	1.6	23
940	Photobiocatalytic Solar Fuel and Solar Chemical Conversion: Sufficient Activity and Better Selectivity. <i>ACS ES&T Engineering</i> , 2022, 2, 989-1000.	3.7	12
941	Regulation of Oxygen Activity by Lattice Confinement over Ni Mg ¹⁺ O Catalysts for Renewable Hydrogen Production. <i>Engineering</i> , 2022, , .	3.2	1
942	Facile Synthesis of FeOOH~Ni ₃ S ₂ Nanosheet Arrays on Nickel Foam via Chemical Immersion toward Electrocatalytic Water Splitting. <i>ChemistrySelect</i> , 2022, 7, .	0.7	4
943	Green Hydrogen from Green Electricity. , 2022, , .		3
944	Surface Modification towards Integral Bulk Catalysts of Transition Metal Borides for Hydrogen Evolution Reaction. <i>Catalysts</i> , 2022, 12, 222.	1.6	4

#	ARTICLE	IF	CITATIONS
945	Bibliographic Coupling Links: Alternative Approaches to Carrying Out Systematic Reviews about Renewable and Sustainable Energy. <i>Environments - MDPI</i> , 2022, 9, 28.	1.5	9
946	New eco-friendly trends to produce biofuel and bioenergy from microorganisms: An updated review. <i>Saudi Journal of Biological Sciences</i> , 2022, , .	1.8	22
947	Techno-Economic Analysis of Hydrogen and Electricity Production by Biomass Calcium Looping Gasification. <i>Sustainability</i> , 2022, 14, 2189.	1.6	8
948	Hydroxyl-Decorated Diiron Complex as a [FeFe]-Hydrogenase Active Site Model Complex: Light-Driven Photocatalytic Activity and Heterogenization on Ethylene-Bridged Periodic Mesoporous Organosilica Catalysts, 2022, 12, 254.	1.6	4
949	An Electrical Model of a Solid Polymer Electrolyte Cell. , 0, 1, 7-12.		0
950	Hydrogen storage based micro-grid: A comprehensive review on technology, energy management and planning techniques. <i>International Journal of Green Energy</i> , 2023, 20, 445-463.	2.1	18
951	Photoelectrochemical Water Splitting using GaN Nanowires with Reverse-Mesa Structures as Photoanode Material. <i>Applied Science and Convergence Technology</i> , 2022, 31, 51-55.	0.3	8
952	Large-scale Synthesis of Spinel Ni _x Mn ₃ O ₄ Solid Solution Immobilized with Iridium Single Atoms for Efficient Alkaline Seawater Electrolysis. <i>Advanced Science</i> , 2022, 9, e2200529.	5.6	41
953	Li decorated heteroborospherene C4B32 as high capacity and reversible hydrogen storage media: A DFT study. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 11948-11954.	3.8	11
954	Biyoklâ¼tleden Elde Edilen Biyoyaklâ¼tlara Genel Bir Baklâ¼Å. <i>European Journal of Science and Technology</i> , 0, , .	0.5	3
955	Law and Policy Review on Green Hydrogen Potential in ECOWAS Countries. <i>Energies</i> , 2022, 15, 2304.	1.6	15
956	^ε In-situ Grown Nickel-Cobalt (NiCo) Alloy Nanoparticles Decorated on Petal-Like Nitrogen-Doped Carbon Spheres for Efficient OER Activity ^{**} . <i>ChemistrySelect</i> , 2022, 7, .	0.7	12
957	Catalysis in Liquid Organic Hydrogen Storage: Recent Advances, Challenges, and Perspectives. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 6067-6105.	1.8	28
958	A critical review on the current technologies for the generation, storage, and transportation of hydrogen. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 13771-13802.	3.8	196
959	Advanced heterolytic H ₂ adsorption of K-added Ru/MgO catalysts for accelerating hydrogen storage into aromatic benzyltoluenes. <i>Journal of Energy Chemistry</i> , 2022, 71, 333-343.	7.1	8
960	The role of hydrogen in decarbonizing a coupled energy system. <i>Journal of Cleaner Production</i> , 2022, 346, 131082.	4.6	37
961	Electro-cultivation of hydrogen-oxidizing bacteria to accumulate ammonium and carbon dioxide into protein-rich biomass. <i>Bioresource Technology Reports</i> , 2022, 18, 101010.	1.5	1
962	A review on the electrocatalytic dissociation of water over stainless steel: Hydrogen and oxygen evolution reactions. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 161, 112323.	8.2	20

#	ARTICLE	IF	CITATIONS
963	Proton exchange membranes for high temperature proton exchange membrane fuel cells: Challenges and perspectives. <i>Journal of Power Sources</i> , 2022, 533, 231386.	4.0	99
964	Fe-doped CoFe ²⁺ P phosphides nanosheets dispersed on nickel foam derived from Prussian blue analogues as efficient electrocatalysts for the oxygen evolution reaction. <i>Journal of Solid State Chemistry</i> , 2022, 311, 123084.	1.4	4
965	Development of electrolysis technologies for hydrogen production: A case study of green steel manufacturing in the Russian Federation. <i>Environmental Technology and Innovation</i> , 2022, 27, 102517.	3.0	13
966	Consumers' innovativeness and conspicuous consumption orientation as predictors of environmentalism: an investigation in the context of smart mobility. <i>Technology Analysis and Strategic Management</i> , 2024, 36, 59-72.	2.0	12
967	A review on hydrogen production and utilization: Challenges and opportunities. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 26238-26264.	3.8	401
968	Effect of B-site Al substitution on hydrogen production of La _{0.4} Sr _{0.6} Mn _{1-x} Al _x (x=0.4, 0.5 and 0.6) perovskite oxides. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 19411-19421.	3.8	12
969	Drastic improvement in photoelectrochemical water splitting performance over prolonged reaction time using new carrier-guiding semiconductor nanostructures. <i>Journal of Materials Chemistry A</i> , 2022, 10, 9821-9829.	5.2	8
970	Development of Yttrium and Iron Oxide Thin Films via AACVD Method for Photooxidation of Water. <i>Russian Journal of Applied Chemistry</i> , 2022, 95, 37-45.	0.1	3
971	Beyond Profitable Shifts to Green Energies, towards Energy Sustainability. <i>Sustainability</i> , 2022, 14, 4506.	1.6	1
972	Microalgae-bacterial granular consortium: Striding towards sustainable production of biohydrogen coupled with wastewater treatment. <i>Bioresource Technology</i> , 2022, 354, 127203.	4.8	24
973	Highly sensitive and stable H ₂ gas sensor based on p-PdO-n-WO ₃ -heterostructure-homogeneously-dispersing thin film. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 17821-17834.	3.8	21
974	Co(III) carboxamide complexes as electrocatalysts for water splitting. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 16921-16932.	3.8	2
975	Au-Doped CuO Nanoparticles as Electrocatalysts for Oxygen Evolution Reaction. <i>ACS Applied Nano Materials</i> , 2022, 5, 6500-6504.	2.4	5
976	Electrodeposition: An efficient method to fabricate self-supported electrodes for electrochemical energy conversion systems. <i>Exploration</i> , 2022, 2, .	5.4	21
977	Hydrogen Production and Its Applications to Mobility. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2022, 13, 501-528.	3.3	7
978	Ternary Ni ²⁺ Mo ⁶⁺ P catalysts for enhanced activity and durability in proton exchange membrane water electrolysis. <i>International Journal of Energy Research</i> , 2022, 46, 13023-13034.	2.2	7
979	Potential Hydrogen Market: Value-Added Services Increase Economic Efficiency for Hydrogen Energy Suppliers. <i>Sustainability</i> , 2022, 14, 4804.	1.6	3
980	Progress of artificial neural networks applications in hydrogen production. <i>Chemical Engineering Research and Design</i> , 2022, 182, 66-86.	2.7	45

#	ARTICLE	IF	CITATIONS
982	Mapping the electrocatalytic water splitting activity of VO ₂ across its insulator-to-metal phase transition. <i>Nanoscale</i> , 2022, 14, 8281-8290.	2.8	1
983	High-Performance Room Temperature Hydrogen Sensor of Pd-In ₂ O ₃ Nanofibers Based on Electrospinning. <i>SSRN Electronic Journal</i> , 0, .	0.4	0
984	Controlled synthesis of trimetallic nitrogen-incorporated CoNiFe layered double hydroxide electrocatalysts for boosting the oxygen evolution reaction. <i>RSC Advances</i> , 2022, 12, 12891-12901.	1.7	9
987	Legal Issues on Hydrogen Bunkering through Domestic Law. <i>Transactions of the Korean Hydrogen and New Energy Society</i> , 2022, 33, 142-147.	0.1	3
988	Reviewâ€”Engineering Challenges in Green Hydrogen Production Systems. <i>Journal of the Electrochemical Society</i> , 2022, 169, 054503.	1.3	15
989	The dual functionality of Zn@BP catalyst: methanolysis and supercapacitor. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 13484-13492.	1.1	5
990	Algae for Wastewater Treatment and Production of Biofuels and Bioproducts. <i>International Journal of Environmental Research</i> , 2022, 16, .	1.1	3
991	An efficient photocatalytic system under visible light: In-situ growth cocatalyst Ni ₂ P on the surface of CdS. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107822.	3.3	16
992	MOF-Derived Porous Fe ₃ O ₄ /RuO ₂ -C Composite for Efficient Alkaline Overall Water Splitting. <i>ACS Applied Energy Materials</i> , 2022, 5, 6059-6069.	2.5	20
993	Residential Fuel Transition and Fuel Interchangeability in Current Self-Aspirating Combustion Applications: Historical Development and Future Expectations. <i>Energies</i> , 2022, 15, 3547.	1.6	1
994	Reversible Hydrogenase Activity Confers Flexibility to Balance Intracellular Redox in <i>Moorella thermoacetica</i> . <i>Frontiers in Microbiology</i> , 2022, 13, .	1.5	4
995	Review on 2D Molybdenum Diselenide (MoSe ₂) and Its Hybrids for Green Hydrogen (H ₂) Generation Applications. <i>ACS Omega</i> , 2022, 7, 16856-16865.	1.6	35
996	Selective electrooxidation of primary amines over a Ni/Co metal-organic framework derived electrode enabling effective hydrogen production in the membrane-free electrolyzer. <i>Journal of Power Sources</i> , 2022, 535, 231461.	4.0	23
997	Towards underground hydrogen storage: A review of barriers. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 162, 112451.	8.2	119
998	The response regularity of biohydrogen production by anthracite H ₂ -producing bacteria consortium to six conventional veterinary antibiotics. <i>Journal of Environmental Management</i> , 2022, 315, 115088.	3.8	0
999	Synergy of nitrogen vacancies and intercalation of carbon species for enhancing sunlight photocatalytic hydrogen production of carbon nitride. <i>Applied Catalysis B: Environmental</i> , 2022, 314, 121497.	10.8	37
1000	Embedding indium nitride at the interface of indium-oxide/indium-zinc-sulfide heterostructure with enhanced interfacial charge transfer for high photocatalytic hydrogen evolution. <i>Journal of Colloid and Interface Science</i> , 2022, 622, 539-548.	5.0	11
1001	Utilization of waste heat from cement plant to generate hydrogen and blend it with natural gas. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 20695-20704.	3.8	16

#	ARTICLE	IF	CITATIONS
1002	Flow and transmission characteristics of the multistage hydrogen Knudsen pump in the micro-power system. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 19206-19216.	3.8	2
1003	A review of behind-the-meter energy storage systems in smart grids. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 164, 112573.	8.2	39
1004	Heat-Triggered Ferri-to-Paramagnetic Transition Accelerates Redox Couple-Mediated Electrocatalytic Water Oxidation. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	8
1005	E-Mobility: Transportation Sector in Transition. , 2022, , 2423-2498.		0
1006	Production of biohydrogen. , 2022, , 283-337.		4
1007	Post-decorated synthesis of metal-organic frameworks derived Ni/Ni ₃ S ₂ @CN electrocatalyst for efficient hydrogen evolution. <i>Journal of Solid State Chemistry</i> , 2022, 313, 123287.	1.4	4
1008	Biomass Gasification in Downdraft Gasifiers: A Technical Review on Production, Up-Gradation and Application of Synthesis Gas. <i>Energies</i> , 2022, 15, 3938.	1.6	17
1009	N, P Self-Doped Porous Carbon Material Derived from Lotus Pollen for Highly Efficient Ethanol-Water Mixtures Photocatalytic Hydrogen Production. <i>Nanomaterials</i> , 2022, 12, 1744.	1.9	6
1010	Hydrogen Economy Assessment & Resource Tool (HEART): A python-based tool for ASEAN H2 roadmap study. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 21897-21907.	3.8	6
1011	Effect of the COVID-19 Pandemic on Renewable Energy Firm's Profitability and Capitalization. <i>Sustainability</i> , 2022, 14, 6870.	1.6	4
1012	Optimal conditions for maximized H ₂ yield from a new green algal strain <i>Chlorella</i> sp. KLSc61. <i>Journal of Applied Phycology</i> , 2022, 34, 1909-1919.	1.5	2
1013	Sustainable H ₂ production from glycerol steam reforming in the heat-integrated reactor: Using reforming-side by-products as feed for the catalytic combustion-side. <i>Journal of Industrial and Engineering Chemistry</i> , 2022, 113, 264-274.	2.9	4
1014	Responses of anaerobic hydrogen-producing granules to acute microplastics exposure during biological hydrogen production from wastewater. <i>Water Research</i> , 2022, 220, 118680.	5.3	10
1015	Direct 2D cement-nanoadditive deposition enabling carbon-neutral hydrogen from natural gas. <i>Nano Energy</i> , 2022, 99, 107415.	8.2	8
1016	Accelerated Kinetics of Hydrogen Oxidation Reaction on the Ni Anode Coupled with BaZr _{0.9} Y _{0.1} O _{3-δ} Proton-Conducting Ceramic Electrolyte Via Tuning the Electrolyte Surface Chemistry. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1017	Bifunctional atomically dispersed ruthenium electrocatalysts for efficient bipolar membrane water electrolysis. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 4142-4150.	3.0	11
1018	Sustainable Clean Energy Production from the Bio-electrochemical Process Using Cathode as Nanocatalyst. , 2022, , 1-30.		2
1019	Perspectives and prospects of underground hydrogen storage and natural hydrogen. <i>Sustainable Energy and Fuels</i> , 2022, 6, 3324-3343.	2.5	44

#	ARTICLE	IF	CITATIONS
1020	Recent Advances in Perovskite Catalysts for Efficient Overall Water Splitting. <i>Catalysts</i> , 2022, 12, 601.	1.6	17
1021	An investigation into the feasibility of a hybrid generatorâ€“photovoltaicâ€“wind farm with variable load profile: case of headland south-west of Morocco. <i>Clean Energy</i> , 2022, 6, 484-495.	1.5	4
1022	Alumina doped Fe ₂ O ₃ foams by freeze-casting for redox cycling applications. <i>Journal of the European Ceramic Society</i> , 2022, 42, 5922-5931.	2.8	2
1023	Proton Generation Using Chitinâ€“Chitinase and Collagenâ€“Collagenase Composites. <i>Journal of Composites Science</i> , 2022, 6, 166.	1.4	1
1024	Exploring the potentials of lean-burn hydrogen SI engine compared to methane operation. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 25044-25056.	3.8	20
1025	Stimulated pHâ€“Dependence Phosphorus Platinumâ€“Nickel Alloy Cluster as Hydrogen Generation Electrocatalyst in Alkaline Solution. <i>Energy Technology</i> , 0, , 2200380.	1.8	1
1026	Three-Dimensional Modeling and Performance Study of High Temperature Solid Oxide Electrolysis Cell with Metal Foam. <i>Sustainability</i> , 2022, 14, 7064.	1.6	3
1027	Technologies for the Clean and Renewable Energy Production for the Sustainable Environment. <i>Advances in Civil and Industrial Engineering Book Series</i> , 2022, , 141-178.	0.2	2
1028	Ordered macroporous superstructure of bifunctional cobalt phosphide with heteroatomic modification for paired hydrogen production and polyethylene terephthalate plastic recycling. <i>Applied Catalysis B: Environmental</i> , 2022, 316, 121667.	10.8	48
1029	Battery energy storage system for enhancing the electrolyzer capacity factor in small-scale WindH ₂ system with a smoothing control strategy: Constrained multi-objective Pareto optimization and case study in Algeria. <i>Journal of Energy Storage</i> , 2022, 52, 105017.	3.9	5
1030	Palladium mesoporous nanoparticles Pd NPs@[KIT-6] and Pd NPs@[KIT-6]-PEG-imid as efficient heterogeneous catalysts for H ₂ production from NaBH ₄ hydrolysis. <i>Fuel</i> , 2022, 325, 124962.	3.4	17
1031	Synergistically coupling of Ni ₃ Mo ₃ C/Mo ₂ C/Ti ₃ C ₂ T _x MXene/N-doped carbon electrocatalyst towards enhanced hydrogen evolution activity. <i>Journal of Alloys and Compounds</i> , 2022, 920, 165826.	2.8	16
1033	Cobalt sandwich-stabilized rhodium nanocatalysts for ammonia borane and tetrahydroxydiboron hydrolysis. <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 4651-4660.	3.0	7
1034	Modern strategy of cyanobacterial biohydrogen production and current approaches toward its enhancement. , 2022, , 219-238.		2
1035	Future of Hydrogen as an Alternative Fuel for Next-Generation Industrial Applications; Challenges and Expected Opportunities. <i>Energies</i> , 2022, 15, 4741.	1.6	56
1036	New proton conductive membranes of indazole- and condensed pyrazolebisphosphonic acid-Nafion membranes for PEMFC. <i>Renewable Energy</i> , 2022, 196, 1187-1196.	4.3	9
1037	Review of electrofuel feasibilityâ€“prospects for road, ocean, and air transport. <i>Progress in Energy</i> , 2022, 4, 042007.	4.6	28
1038	Photocatalytic Anaerobic Dehydrogenation of Alcohols over Metal Halide Perovskites: A New Acid-Free Scheme for H ₂ Production. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 6559-6565.	2.1	10

#	ARTICLE	IF	CITATIONS
1039	Electrochemical oxygen evolution reaction of controllable self-assembled CuCo ₂ O ₄ . <i>Ionics</i> , 2022, 28, 4381-4394.	1.2	3
1040	Review on Catalytic Biomass Gasification for Hydrogen Production as a Sustainable Energy Form and Social, Technological, Economic, Environmental, and Political Analysis of Catalysts. <i>ACS Omega</i> , 2022, 7, 24918-24941.	1.6	27
1041	Ultrasmall VN/Co heterostructure with optimized N active sites anchored in N-doped graphitic nanocarbons for boosting hydrogen evolution. , 2022, 1, 100027.		0
1042	Regulation of Co ₃ O ₄ /Co hetero-structures embedded in N-doped porous carbon as high-efficient catalysts for dehydrogenation of ammonia borane. <i>Materials Chemistry and Physics</i> , 2022, 289, 126514.	2.0	1
1043	Frequency control studies: A review of power system, conventional and renewable generation unit modeling. <i>Electric Power Systems Research</i> , 2022, 211, 108191.	2.1	13
1044	The adsorption behavior of phenol on the surface of 1D/2D M@MoS ₂ (M=Co and Rh) for hydrodeoxygenation reaction: Insights from theoretical investigations. <i>Applied Surface Science</i> , 2022, 601, 154242.	3.1	0
1045	Ammonia Decomposition in the Process Chain for a Renewable Hydrogen Supply. <i>Chemie-Ingenieur-Technik</i> , 2022, 94, 1413-1425.	0.4	22
1046	Three-dimensional modeling of gas-liquid flow in the anode bipolar plate of a PEM electrolyzer. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2022, 44, .	0.8	4
1047	Thermo-fluid dynamics modelling of steam electrolysis in fully-assembled tubular high-temperature proton-conducting cells. <i>International Journal of Hydrogen Energy</i> , 2022, , .	3.8	0
1048	Water Oxidation Performance Enhanced by Electrochemically Designed Vacancies on a Prussian Blue Catalyst. <i>ACS Applied Energy Materials</i> , 2022, 5, 9447-9454.	2.5	2
1049	Recent progress on rational design of catalysts for fermentative hydrogen production. <i>SusMat</i> , 2022, 2, 392-410.	7.8	11
1050	Unveiling the Coercivity-Induced Electrocatalytic Oxygen Evolution Activity of Single-Domain CoFe ₂ O ₄ Nanocrystals under a Magnetic Field. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 7476-7482.	2.1	13
1051	Suppressing Methane Production to Boost High-Purity Hydrogen Production in Microbial Electrolysis Cells. <i>Environmental Science & Technology</i> , 2022, 56, 11931-11951.	4.6	23
1052	Can hydrogen be the sustainable fuel for mobility in India in the global context?. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 33571-33596.	3.8	20
1053	An open-source code to calculate pressure-composition-temperature diagrams of multicomponent alloys for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 32582-32593.	3.8	6
1054	Electrospinning of PdIn ₂ O ₃ Nanofibers for High-Performance Room Temperature Hydrogen Sensors. <i>ACS Applied Nano Materials</i> , 2022, 5, 12646-12655.	2.4	10
1055	Necessity of 3D modeling for simulation of impact of skin effect of hydrogen charging on the binding energy of traps determined from the thermal desorption spectra. <i>Continuum Mechanics and Thermodynamics</i> , 0, , .	1.4	0
1056	Size effects and active state formation of cobalt oxide nanoparticles during the oxygen evolution reaction. <i>Nature Energy</i> , 2022, 7, 765-773.	19.8	138

#	ARTICLE	IF	CITATIONS
1057	Sludge Valorization Process for Waste-to-Value-Added Products: Process Simulation, Sustainability Assessment, and Fuzzy Multi-Criteria Decision Making. ACS Sustainable Chemistry and Engineering, 2022, 10, 11428-11440.	3.2	6
1058	Wastewater-derived biohydrogen: Critical analysis of related enzymatic processes at the research and large scales. Science of the Total Environment, 2022, 851, 158112.	3.9	14
1059	Two-stage model predictive control for a hydrogen-based storage system paired to a wind farm towards green hydrogen production for fuel cell electric vehicles. International Journal of Hydrogen Energy, 2022, 47, 32202-32222.	3.8	19
1060	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
1061	Influence of element substitution on structural stability and hydrogen storage performance: A theoretical and experimental study on TiCr ₂ -xMnx alloy. Renewable Energy, 2022, 197, 564-573.	4.3	14
1062	Recent progress in perovskite transition metal oxide-based photocatalyst and photoelectrode materials for solar-driven water splitting. Journal of Environmental Chemical Engineering, 2022, 10, 108429.	3.3	30
1063	Photocatalytic hydrogen production using graphitic carbon nitride (GCN): A precise review. Renewable and Sustainable Energy Reviews, 2022, 168, 112776.	8.2	57
1064	Research progress of additives in photobiological hydrogen production system to enhance biohydrogen. Bioresource Technology, 2022, 362, 127787.	4.8	7
1065	Food waste valorisation via gasification – A review on emerging concepts, prospects and challenges. Science of the Total Environment, 2022, 851, 157955.	3.9	25
1066	Nanoparticles application on fuel production from biological resources: A review. Fuel, 2023, 331, 125682.	3.4	30
1067	Living intracellular inorganic-microorganism biohybrid system for efficient solar hydrogen generation. Joule, 2022, 6, 2293-2303.	11.7	12
1068	Latest eco-friendly avenues on hydrogen production towards a circular bioeconomy: Currents challenges, innovative insights, and future perspectives. Renewable and Sustainable Energy Reviews, 2022, 168, 112916.	8.2	122
1069	Energy and environmental assessment of hydrogen from biomass sources: Challenges and perspectives. Biomass and Bioenergy, 2022, 165, 106556.	2.9	29
1070	Electronic nose signals-based deep learning models to realize high-precision monitoring of simultaneous saccharification and fermentation of cassava. Microchemical Journal, 2022, 182, 107929.	2.3	5
1071	System development and assessment for green hydrogen generation and blending with natural gas. Energy, 2022, 261, 125233.	4.5	26
1072	Accelerated kinetics of hydrogen oxidation reaction on the Ni anode coupled with BaZr _{0.9} Y _{0.1} O _{3-δ} proton-conducting ceramic electrolyte via tuning the electrolyte surface chemistry. Applied Surface Science, 2022, 605, 154800.	3.1	20
1073	Applications of Nanotechnology in Biofuel Production. Clean Energy Production Technologies, 2022, , 297-332.	0.3	1
1074	Large-scale hydrogen production via water electrolysis: a techno-economic and environmental assessment. Energy and Environmental Science, 2022, 15, 3583-3602.	15.6	141

#	ARTICLE	IF	CITATIONS
1075	Bias-induced surface reconstruction of a MOF-derived bimetallic (Co & V) oxide as an electrocatalyst for water oxidation. <i>Sustainable Energy and Fuels</i> , 2022, 6, 4779-4786.	2.5	1
1076	Palladium catalyzes hydrogen production from formic acid: significant impact of support polypyrrole. <i>New Journal of Chemistry</i> , 2022, 46, 18874-18881.	1.4	2
1077	Operation optimization for gas-electric integrated energy system with hydrogen storage module. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 36622-36639.	3.8	14
1078	A theoretical study on hydrodeoxygenation of phenol over MoS ₂ supported single-atom Fe catalyst. <i>Molecular Catalysis</i> , 2022, 530, 112650.	1.0	2
1079	MXene, silicene and germanene: preparation and energy storage applications. <i>Materials Today Energy</i> , 2022, 30, 101144.	2.5	10
1080	Growth of Graphitic Carbon Nitride-Incorporated ZnO Nanorods on Silicon Pyramidal Substrates for Enhanced Hydrogen Sensing Applications. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 41481-41488.	4.0	3
1081	Photoelectrocatalytic conversion of biomethane and biogas to hydrogen over a nanostructured Ti/ TiO_2 semiconductor. <i>International Journal of Energy Research</i> , 2022, 46, 24332-24342.	2.2	1
1082	Evolution of the conceptualization of hydrogen through knowledge maps, energy return on investment (EROI) and national policy strategies. <i>Clean Technologies and Environmental Policy</i> , 2023, 25, 69-91.	2.1	2
1083	Reflective-Type High Sensitivity Optical Fiber Hydrogen Sensor Based On Enlarged Taper Cascaded With Tilted Fiber Grating. <i>Journal of Lightwave Technology</i> , 2022, 40, 6296-6302.	2.7	8
1084	Greener reactants, renewable energies and environmental impact mitigation strategies in pyrometallurgical processes: A review. <i>MRS Energy & Sustainability</i> , 2022, 9, 212-247.	1.3	9
1085	Numerical Study on the Performance and Emission Characteristics of Small Compression Ignition Engine Fueled with Diesel-ammonia Blend. <i>Transactions of the Korean Society of Automotive Engineers</i> , 2022, 30, 723-729.	0.1	1
1086	Elemental chalcogens acting as metal-free electrocatalysts for effective alkaline and acidic hydrogen evolution reaction. <i>Catalysis Today</i> , 2023, 423, 113917.	2.2	2
1087	A systematic review of the techno-economic assessment of various hydrogen production methods of power generation. <i>Frontiers in Sustainability</i> , 0, 3, .	1.3	3
1088	Electrochemical Promotion of Catalysis for CO ₂ Valorization. <i>Modern Aspects of Electrochemistry</i> , 2023, , 219-266.	0.2	0
1089	Targeted H ₂ O activation to manipulate the selective photocatalytic reduction of CO ₂ to CH ₃ OH over carbon nitride-supported cobalt sulfide. <i>Green Chemistry</i> , 2022, 24, 8791-8799.	4.6	11
1090	“Overcoming the Limits”: The first results of an interdisciplinary scientific project. <i>IOP Conference Series: Earth and Environmental Science</i> , 2022, 1096, 012008.	0.2	0
1091	Phosphorus-Rich Ruthenium Phosphide Embedded on a 3D Porous Dual-Doped Graphitic Carbon for Hydrogen Evolution Reaction. <i>Nanomaterials</i> , 2022, 12, 3597.	1.9	0
1092	Ag ₂ Se/SnTe nanorod as potential candidate for energy conversion system developed via hydrothermal route. <i>Ceramics International</i> , 2023, 49, 6780-6789.	2.3	22

#	ARTICLE	IF	CITATIONS
1093	Peony flower-like CuxS@NiMn LDH heterostructure as an efficient electrocatalyst for the oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 1347-1359.	3.8	9
1094	Blue and green hydrogen energy to meet European Union decarbonisation objectives. An overview of perspectives and the current state of affairs. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 1304-1322.	3.8	62
1095	Optimization of the Laminate Structure of a Composite Cylinder Based on the Combination of Response Surface Methodology (RSM) and Finite Element Analysis (FEA). <i>Molecules</i> , 2022, 27, 7361.	1.7	2
1096	Alternative Fuels for Agriculture Sustainability: Carbon Footprint and Economic Feasibility. <i>AgriEngineering</i> , 2022, 4, 993-1015.	1.7	14
1097	Electrochemical Strategy for Proton Relay Installation Enhances the Activity of a Hydrogen Evolution Electrocatalyst. <i>Journal of the American Chemical Society</i> , 2022, 144, 20267-20277.	6.6	8
1098	Co-Fermenting Pyrolysis Aqueous Condensate and Pyrolysis Syngas with Anaerobic Microbial Communities Enables L-Malate Production in a Secondary Fermentative Stage. <i>Fermentation</i> , 2022, 8, 512.	1.4	4
1099	A comparative analysis of biogas and hydrogen, and the impact of the certificates and blockchain new paradigms. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 39303-39318.	3.8	11
1100	In Situ Growth of Self-Supporting MOFs-Derived Ni ₂ P on Hierarchical Doped Carbon for Efficient Overall Water Splitting. <i>Catalysts</i> , 2022, 12, 1319.	1.6	5
1101	Impact of geological and operational conditions on underground hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 1450-1471.	3.8	29
1102	A Targeted Review of Current Progress, Challenges and Future Perspective of gâ€C ₃ N ₄ -based Hybrid Photocatalyst Toward Multidimensional Applications. <i>Chemical Record</i> , 2023, 23, .	2.9	19
1103	Environmental impact assessment of hydrogen production via steam methane reforming based on emissions data. <i>Energy Reports</i> , 2022, 8, 13585-13595.	2.5	18
1104	Recent Insights into Low-Surface-Area Catalysts for Hydrogen Production from Ammonia. <i>Energies</i> , 2022, 15, 8143.	1.6	5
1105	Direct synthesis of branched hydrocarbons from CO ₂ over composite catalysts in a single reactor. <i>Journal of CO₂ Utilization</i> , 2022, 66, 102261.	3.3	9
1106	Sustainable production of biohydrogen from algae biomass: Critical review on pretreatment methods, mechanism and challenges. <i>Bioresource Technology</i> , 2022, 366, 128187.	4.8	13
1107	A review on turning sewage sludge to value-added energy and materials via thermochemical conversion towards carbon neutrality. <i>Journal of Cleaner Production</i> , 2022, 379, 134657.	4.6	20
1108	Integrated design of solar concentrator and thermochemical reactor guided by optimal solar radiation distribution. <i>Energy</i> , 2023, 263, 125828.	4.5	15
1109	Tuning cationic/anionic dyes sorption from aqueous solution onto green algal biomass for biohydrogen production. <i>Environmental Research</i> , 2023, 216, 114522.	3.7	21
1110	Hybridizing solid oxide fuel cells with internal combustion engines for power and propulsion systems: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2023, 171, 112982.	8.2	33

#	ARTICLE	IF	CITATIONS
1111	Impacts of relative permeability hysteresis, wettability, and injection/withdrawal schemes on underground hydrogen storage in saline aquifers. <i>Fuel</i> , 2023, 333, 126516.	3.4	43
1112	Microstructural Transformation and Hydrogen Generation Performance of Magnesium Scrap Ball Milled with Devarda's Alloy. <i>Materials</i> , 2022, 15, 8058.	1.3	4
1113	Formic Acid Dehydrogenation via an Active Ruthenium Pincer Catalyst Immobilized on Tetra-Coordinated Aluminum Hydride Species Supported on Fibrous Silica Nanospheres. <i>ACS Catalysis</i> , 2022, 12, 14408-14417.	5.5	15
1114	Effects of Biochar and Nitrogen Application on Rice Biomass Saccharification, Bioethanol Yield and Cell Wall Polymers Features. <i>International Journal of Molecular Sciences</i> , 2022, 23, 13635.	1.8	1
1115	Research Progress and Perspectives of Solid Fuels Chemical Looping Reaction with Fe-Based Oxygen Carriers. <i>Energy & Fuels</i> , 2022, 36, 13956-13984.	2.5	21
1116	Gas-Phase Synthesis of PtMo Alloy Electrocatalysts with Enhanced Activity and Durability for Oxygen Reduction Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 15319-15327.	3.2	7
1117	Palladium/Graphene Oxide Nanocomposite for Hydrogen Gas Sensing Applications Based on Tapered Optical Fiber. <i>Materials</i> , 2022, 15, 8167.	1.3	5
1118	Effective strategies for improved optoelectronic properties of graphitic carbon nitride: A review. <i>Results in Chemistry</i> , 2023, 5, 100699.	0.9	0
1119	Recent advances in MoS ₂ -based nanomaterial sensors for room-temperature gas detection: a review. <i>Sensors & Diagnostics</i> , 2023, 2, 361-381.	1.9	14
1120	Nanofibrillar hydrogels outperform Pt/C for hydrogen evolution reactions under high-current conditions. <i>Journal of Materials Chemistry A</i> , 2023, 11, 1658-1665.	5.2	4
1121	Innovations in algal biorefineries for production of sustainable value chain biochemicals from the photosynthetic cell factories. <i>Algal Research</i> , 2023, 69, 102949.	2.4	3
1122	H ₂ generation from steam gasification of swine manure over nickel-loaded perovskite oxides catalysts. <i>Environmental Research</i> , 2023, 219, 115070.	3.7	4
1123	Construction of nickel sulfide phase-heterostructure for alkaline hydrogen evolution reaction. <i>Journal of Colloid and Interface Science</i> , 2023, 633, 640-648.	5.0	8
1124	Facile colloidal synthesis of transition metal (Co, Fe, and Ni)-added Ir-W NPs for HER in acidic electrolyte. <i>Applied Surface Science</i> , 2023, 612, 155862.	3.1	9
1125	A review of hydrogen/rock/brine interaction: Implications for Hydrogen Geo-storage. <i>Progress in Energy and Combustion Science</i> , 2023, 95, 101066.	15.8	65
1126	Recycling and characterization of end-of-life solid oxide fuel/electrolyzer ceramic material cell components. <i>Resources, Conservation and Recycling</i> , 2023, 190, 106809.	5.3	3
1127	2D/2D core/shell structure of FeCo ₂ O ₄ @NiMn LDH for efficient oxygen evolution reaction. <i>Journal of Alloys and Compounds</i> , 2023, 937, 168478.	2.8	3
1128	Scalable production of visible light photocatalysts with extended nanojunctions of WO ₃ /g-C ₃ N ₄ using zeta potential and phase control in sol-gel process. <i>Applied Surface Science</i> , 2023, 612, 155838.	3.1	8

#	ARTICLE	IF	CITATIONS
1129	The chicken and egg dilemma for Malaysian sustainable development plan against the economic development in meeting SDG 13 goal. AIP Conference Proceedings, 2022, , .	0.3	0
1130	Lateral Offset Single-Mode Fiber-Based Fabry-Perot Interferometers with Vernier Effect for Hydrogen Sensing. Analytical Chemistry, 0, , .	3.2	3
1131	A study of two-dimensional single atom-supported <sc>MXenes</sc> as hydrogen evolution reaction catalysts using density functional theory and machine learning. International Journal of Quantum Chemistry, 2023, 123, .	1.0	4
1132	Preparation of N-doped MoP-based core-shell nanorods and their electrocatalytic performance in hydrogen evolution. Journal of Fuel Chemistry and Technology, 2022, 50, 1437-1448.	0.9	2
1133	Fly Ash-Based Geopolymers as Lower Carbon Footprint Alternatives to Portland Cement for Well Cementing Applications. Energies, 2022, 15, 8819.	1.6	5
1134	Cobalt-Doped Iron Phosphate Crystal on Stainless Steel Mesh for Corrosion-Resistant Oxygen Evolution Catalyst. Catalysts, 2022, 12, 1521.	1.6	1
1135	Construction of hollow tubular Co ₉ S ₈ /ZnSe S-scheme heterojunctions for enhanced photocatalytic H ₂ evolution. International Journal of Hydrogen Energy, 2023, 48, 5126-5137.	3.8	8
1136	Hayvancıların Üretimlerinin Biyogaz Enerjisi Farkındalığına: Tanımlanmış Bir Araştırma. Ziraat Fakültesi Dergisi, 2022, 10, 294-302.	0.3	0
1137	Investigation of transition metal (Fe, Ni, Co) complexes based on 1,10-phenanthroline as electrocatalysts for hydrogen evolution reaction. International Journal of Electrochemical Science, 2022, 17, 221227.	0.5	2
1138	Controlled photodeposition of Pt onto TiO ₂ -g-C ₃ N ₄ systems for photocatalytic hydrogen production. Catalysis Today, 2022, , .	2.2	2
1139	Selectively Enhanced Electrocatalytic Oxygen Evolution within Nanoscopic Channels Fitting a Specific Reaction Intermediate for Seawater Splitting. Small, 2023, 19, .	5.2	11
1140	Enhanced fermentative hydrogen production from potato waste by enzymatic pretreatment. Environmental Technology (United Kingdom), 0, , 1-9.	1.2	1
1141	Bibliometric Analysis of Global Trends around Hydrogen Production Based on the Scopus Database in the Period 2011-2021. Energies, 2023, 16, 87.	1.6	6
1142	Visible-Light-Driven Enhanced Biohydrogen Production by Photo-Biohybrid System Based on Photoelectron Transfer between Intracellular Photosensitizer Gold Nanoparticles and <i>Clostridium butyricum</i>. ACS Sustainable Chemistry and Engineering, 2023, 11, 300-311.	3.2	2
1143	Prospects for the Implementation of Underground Hydrogen Storage in the EU. Energies, 2022, 15, 9535.	1.6	9
1144	Challenges and future opportunities of nanoparticle applications to various biofuel generation processes – a review. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2023, 237, 1085-1099.	1.4	2
1145	An Iron-Doped Calcium Titanate Cocatalyst for the Oxygen Reduction Reaction. Catalysts, 2023, 13, 127.	1.6	0
1146	Chemical looping gasification of biomass char for hydrogen-rich syngas production via Mn-doped Fe ₂ O ₃ oxygen carrier. International Journal of Hydrogen Energy, 2023, 48, 12636-12645.	3.8	6

#	ARTICLE	IF	CITATIONS
1147	Technology life cycle and commercialization readiness of hydrogen production technology using patent analysis. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 12139-12154.	3.8	6
1148	Carbon-quantum-dots-involved Fe/Co/Ni phosphide open nanotubes for high effective seawater electrocatalytic decomposition. <i>Applied Catalysis B: Environmental</i> , 2023, 326, 122403.	10.8	16
1149	Weakening CO poisoning over size- and support-dependent Pt _n /X-graphene catalyst (X = C, B, N, S). <i>Journal of Materials Chemistry A</i> , 2023, 11, 1756-1765.	3.6	8
1150	A large size BiVO ₄ photoanode with high stability for efficient water oxidation and wastewater treatment coupled with H ₂ evolution. <i>Journal of Materials Chemistry A</i> , 2023, 11, 1756-1765.	5.2	11
1151	Graphene-Based Derivatives Heterostructured Catalytic Systems for Sustainable Hydrogen Energy via Overall Water Splitting. <i>Catalysts</i> , 2023, 13, 109.	1.6	11
1152	Low-Grade Thermal Energy Harvesting and Self-Powered Sensing Based on Thermogalvanic Hydrogels. <i>Micromachines</i> , 2023, 14, 155.	1.4	6
1153	A Semiconductor Biohybrid System for Photo-Synergetic Enhancement of Biological Hydrogen Production. <i>Chemistry - A European Journal</i> , 2023, 29, .	1.7	2
1154	Livestock Manure Valorization to Biochemicals and Energy. , 2023, , 211-239.		1
1155	An integrated modeling method for membrane reactors and optimization study of operating conditions. <i>Energy</i> , 2023, 268, 126730.	4.5	13
1156	Influences on hydrogen production at a wind farm. <i>International Journal of Hydrogen Energy</i> , 2023, , .	3.8	0
1157	Analysis of hydrogen storage mechanism in bilayer double-vacancy defective graphene modified using transition metals: Insights from Ti-BDVG(Ti)-Ti. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 14322-14336.	3.8	4
1158	Optical hydrogen sensing with high-Q guided-mode resonance of Al ₂ O ₃ /WO ₃ /Pd nanostructure. <i>Scientific Reports</i> , 2023, 13, .	1.6	1
1159	Magnetic and Electric Properties of Pyrazole-Based Metal-Organic Frameworks Grafted With a Sulfonic Moiety. <i>Crystal Growth and Design</i> , 2023, 23, 1104-1118.	1.4	4
1160	Thermally Accelerated Surface Polaron Hopping in Photoelectrochemical Water Splitting. <i>Journal of Physical Chemistry Letters</i> , 2023, 14, 413-419.	2.1	5
1161	Ultra high response for hydrogen gas on Pd-Au alloy@ZnO core-shell nanoparticles with Pd-Au gradient composition alloy core. <i>Materials Today Nano</i> , 2023, 21, 100292.	2.3	3
1162	A review on optimistic biorefinery products: Biofuel and bioproducts from algae biomass. <i>Fuel</i> , 2023, 338, 127378.	3.4	18
1163	A review on global warming potential, challenges and opportunities of renewable hydrogen production technologies. <i>Sustainable Materials and Technologies</i> , 2023, 35, e00567.	1.7	15
1164	Alternative vehicular fuels for environmental decarbonization: A critical review of challenges in using electricity, hydrogen, and biofuels as a sustainable vehicular fuel. <i>Chemical Engineering Journal Advances</i> , 2023, 14, 100442.	2.4	33

#	ARTICLE	IF	CITATIONS
1165	Numerical investigation and Pareto optimization on performance, emission and in-cylinder reforming characteristics for two cylinder reciprocating engine with COx free fuel. International Journal of Hydrogen Energy, 2023, 48, 10272-10287.	3.8	2
1166	Atomic-Layer-Deposition Derived Pt subnano Clusters on the (110) Facet of Hexagonal Al ₂ O ₃ Plates: Efficient for Formic Acid Decomposition and Water Gas Shift. ACS Catalysis, 2023, 13, 887-901.	5.5	4
1167	Techno-economic analysis of recently improved hydrogen production pathway and infrastructure. Energy Reports, 2022, 8, 836-844.	2.5	11
1168	Modern Technologies of Hydrogen Production. Processes, 2023, 11, 56.	1.3	17
1169	Overview of US patents for energy management of renewable energy systems with hydrogen. International Journal of Hydrogen Energy, 2023, 48, 9574-9591.	3.8	10
1170	A Comparison of Photodeposited RuO ₂ for Alkaline Water Electrolysis. ACS Applied Energy Materials, 2023, 6, 1449-1458.	2.5	2
1171	Recent development of integrating CO ₂ hydrogenation into methanol with ocean thermal energy conversion (OTEC) as potential source of green energy. Green Chemistry Letters and Reviews, 2023, 16, .	2.1	3
1172	A Brief Review of Hydrogen Production Methods and Their Challenges. Energies, 2023, 16, 1141.	1.6	35
1174	The role of hydrogen energy: Strengths, weaknesses, opportunities, and threats. , 2023, , 3-43.		2
1175	Construction of Nitrogen-Doped Biphasic Transition-Metal Sulfide Nanosheet Electrode for Energy-Efficient Hydrogen Production via Urea Electrolysis. Small, 2023, 19, .	5.2	24
1176	Roadmap to Achieving Sustainable Development via Green Hydrogen. Energies, 2023, 16, 1368.	1.6	17
1178	The effect of temperature and sulfolane concentration on aqueous electrolyte with molecular crowding: A molecular dynamics simulation study. AIP Advances, 2023, 13, .	0.6	1
1179	CoP@Ni core-shell heterostructure nanowire array: A highly efficient electrocatalyst for hydrogen evolution. Journal of Colloid and Interface Science, 2023, 637, 354-362.	5.0	16
1180	Synthesis of functionalized ZnO nanoflake loaded polyvinylidene fluoride composites with enhanced energy storage properties. Polymer Composites, 2023, 44, 2488-2499.	2.3	7
1181	Multistage interfacial engineering of 3D carbonaceous Ni ₂ P nanospheres/nanoflowers derived from Ni-BTC metal-organic frameworks for overall water splitting. Journal of Colloid and Interface Science, 2023, 638, 582-594.	5.0	9
1182	DEVELOPMENT OF CRITICAL TECHNOLOGIES IN THE FIELD OF ENERGY SECURITY OF UKRAINE. Innovative Economy, 2022, , 115-126.	0.0	2
1183	New Insights into Cu/Cu ₂ O/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
1184	Vacancy-PBA derived nanoparticle containing defect-rich crystal structure and P, S dual-doping as an outstanding oxygen evolution electrocatalyst. Journal of Alloys and Compounds, 2023, 941, 168935.	2.8	3

#	ARTICLE	IF	CITATIONS
1185	Hydrogen Production System Using Alkaline Water Electrolysis Adapting to Fast Fluctuating Photovoltaic Power. <i>Energies</i> , 2023, 16, 3308.	1.6	0
1186	Optimizing green hydrogen production: Leveraging load profile simulation and renewable energy integration. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 38015-38026.	3.8	9
1187	Investment in wind-based hydrogen production under economic and physical uncertainties. <i>Applied Energy</i> , 2023, 337, 120881.	5.1	6
1188	Theoretical analysis of a solar membrane reactor with enhanced mass transfer by using helical inserts. <i>Energy Conversion and Management</i> , 2023, 283, 116885.	4.4	7
1189	Magnetic field Pre-polarization enhances the efficiency of alkaline water electrolysis for hydrogen production. <i>Energy Conversion and Management</i> , 2023, 283, 116906.	4.4	6
1190	Hydrogen and syngas production by hybrid filtration combustion: Progress and challenges. <i>Renewable and Sustainable Energy Reviews</i> , 2023, 177, 113213.	8.2	14
1191	Energy optimization and economic study of an energy storage system based on a carbon dioxide-to-methanol process. <i>Journal of Energy Storage</i> , 2023, 62, 106846.	3.9	2
1192	AEM-electrolyzer based hydrogen integrated renewable energy system optimisation model for distributed communities. <i>Energy Conversion and Management</i> , 2023, 285, 117025.	4.4	9
1193	Formation of ReS ₂ /ReO ₃ semiconductor-metal heterostructure boosts electrocatalytic performance of pristine ReS ₂ nanoparticles in hydrogen evolution reaction. <i>Applied Materials Today</i> , 2023, 32, 101781.	2.3	4
1194	An organic semiconductor/metal Schottky heterojunction based direct current triboelectric nanogenerator windmill for wind energy harvesting. <i>Nano Energy</i> , 2023, 109, 108302.	8.2	8
1195	Bio-hydrogen production from the photocatalytic conversion of wastewater: Parametric analysis and data-driven modelling using nonlinear autoregressive with exogeneous input and back-propagated multilayer perceptron neural networks. <i>Fuel</i> , 2023, 344, 128026.	3.4	5
1196	A step towards carbon neutrality in E7: The role of environmental taxes, structural change, and green energy. <i>Journal of Environmental Management</i> , 2023, 337, 117556.	3.8	28
1197	The Role of Nuclear Energy to Reduce Carbon Emission. , 2023, , 67-77.		0
1198	Characterization of pyrolysis oil produced from organic and plastic wastes using an auger reactor. <i>Energy Conversion and Management</i> , 2023, 278, 116723.	4.4	17
1199	Hydrogenase and Nitrogenase: Key Catalysts in Biohydrogen Production. <i>Molecules</i> , 2023, 28, 1392.	1.7	11
1202	Modeling and optimization of a hybrid renewable energy system integrated with gas turbine and energy storage. <i>Energy Conversion and Management</i> , 2023, 279, 116763.	4.4	19
1203	Optimum Design of High-Temperature Steam Generator for Hydrogen Production Enhancement. <i>International Journal of Energy Research</i> , 2023, 2023, 1-15.	2.2	2
1204	Photocatalytic and Piezocatalytic Properties of h-NbP and h-NbN Monolayers for Green Hydrogen Production: Insight from Density Functional Theory Calculations. <i>Journal of Physical Chemistry C</i> , 2023, 127, 3408-3416.	1.5	3

#	ARTICLE	IF	CITATIONS
1205	Platinum-Anchored Iron Oxide Nanostructures for Efficient Hydrogen Evolution Reaction in Acidic Media. <i>Journal of Physical Chemistry C</i> , 2023, 127, 3996-4005.	1.5	3
1206	Visibleâ€”Light Driven Systems: Effect of the Parameters Affecting Hydrogen Production through Photoreforming of Organics in Presence of Cu ₂ O/TiO ₂ Nanocomposite Photocatalyst. <i>Applied Sciences (Switzerland)</i> , 2023, 13, 2337.	1.3	0
1207	Optimal design of a coupled photovoltaicâ€”electrolysis-battery system for hydrogen generation. <i>Sustainable Energy and Fuels</i> , 2023, 7, 1395-1414.	2.5	1
1208	Stability of Catalytic Centres in Lightâ€”Driven Hydrogen Evolution by Diâ€”and Oligonuclear Photocatalysts. <i>Chemistry - A European Journal</i> , 2023, 29, .	1.7	3
1209	Single Stack Performance using Chromium Carbide (Crâ€™C) and Niobium Carbide (Nbâ€™C) Coated on 316 L Bipolar Plates. <i>Jurnal Kejuruteraan</i> , 2020, 32, 591-597.	0.2	0
1210	Alkaline electrolysis of wastewater and low-quality water. <i>Journal of Cleaner Production</i> , 2023, 397, 136613.	4.6	12
1211	Robust construction of CdSe nanorods@Ti ₃ C ₂ MXene nanosheet for superior photocatalytic H ₂ evolution. <i>Applied Catalysis B: Environmental</i> , 2023, 328, 122537.	10.8	20
1212	Effect of terminations on the hydrogen evolution reaction mechanism on Ti ₃ C ₂ MXene. <i>Journal of Materials Chemistry A</i> , 2023, 11, 6886-6900.	5.2	15
1213	A numerical study on turquoise hydrogen production by catalytic decomposition of methane. <i>Chemical Engineering and Processing: Process Intensification</i> , 2023, 186, 109323.	1.8	1
1214	CuCo ₂ O ₄ â€”NiO heterostructure catalysts for hydrogen production from ammonia borane. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 19543-19553.	3.8	4
1215	Calcium carbide residue â€” a promising hidden source of hydrogen. <i>Green Chemistry</i> , 2023, 25, 3524-3532.	4.6	4
1216	Research on engineered electrocatalysts for efficient water splitting: a comprehensive review. <i>Physical Chemistry Chemical Physics</i> , 2023, 25, 8992-9019.	1.3	4
1217	A systematic review on green hydrogen for off-grid communities â€” technologies, advantages, and limitations. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 19751-19771.	3.8	14
1218	Novel Nafion/Graphitic Carbon Nitride Nanosheets Composite Membrane for Steam Electrolysis at 110 Â°C. <i>Membranes</i> , 2023, 13, 308.	1.4	1
1219	Hydrogen-assisted fatigue crack growth: Pre-charging vs in-situ testing in gaseous environments. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2023, 871, 144885.	2.6	2
1220	Comparative evaluation of the biohydrogen production potential of thermophilic microorganisms isolated from hot springs located in Izmir. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 22897-22908.	3.8	8
1221	Biofuel production, hydrogen production and water remediation by photocatalysis, biocatalysis and electrocatalysis. <i>Environmental Chemistry Letters</i> , 2023, 21, 1315-1379.	8.3	27
1222	Ternary compound heterojunction from isomerism h-CdS/c-CdSe exhibits boosting photoelectrochemical and hydrogen evolution reaction properties. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 20324-20337.	3.8	10

#	ARTICLE	IF	CITATIONS
1223	A Review on Research and Technology Development of Green Hydrogen Energy Systems with Thermal Management and Heat Recovery. <i>Heat Transfer Engineering</i> , 2024, 45, 300-322.	1.2	3
1224	Experimental and numerical investigation of the impact of the pure hydrogen fueling on fuel consumption and NO _x emissions in a small DI SI engine. <i>International Journal of Engine Research</i> , 2023, 24, 3574-3587.	1.4	2
1225	Dynamic and energy analysis of a liquid piston hydrogen compressor. <i>International Journal of Hydrogen Energy</i> , 2023, , .	3.8	0
1226	Ultrahigh Mass Activity Pt Entities Consisting of Pt Single atoms, Clusters, and Nanoparticles for Improved Hydrogen Evolution Reaction. <i>Small</i> , 2023, 19, .	5.2	14
1227	Optimization of operating parameters for boosting the performance of the PEMEC by the response surface methodology. <i>International Journal of Green Energy</i> , 2023, 20, 1861-1872.	2.1	1
1228	Hydrogen Production from Biogas: Development of an Efficient Nickel Catalyst by the Exsolution Approach. <i>Energies</i> , 2023, 16, 2993.	1.6	2
1229	Enhanced fermentative biohydrogen production from milk processing wastewater by magnetic spinel ferrites nanoparticles. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2023, 45, 3138-3153.	1.2	2
1230	Ir–Ru Electrocatalysts Embedded in N-Doped Carbon Matrix for Proton Exchange Membrane Water Electrolysis. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	7
1231	Evaluation of electrosynthesized reduced graphene oxide–Ni/Fe/Co-based (oxy)hydroxide catalysts towards the oxygen evolution reaction. <i>Beilstein Journal of Nanotechnology</i> , 0, 14, 420-433.	1.5	0
1232	Review of green hydrogen technologies application in maritime transport. <i>International Journal of Green Energy</i> , 2023, 20, 1800-1825.	2.1	1
1233	Ultrathin reinforced composite separator for alkaline water electrolysis: Comprehensive performance evaluation. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 23885-23893.	3.8	3
1234	Combined Steam and CO ₂ Reforming of Methane over Ni-Based CeO ₂ -MgO Catalysts: Impacts of Preparation Mode and Pd Addition. <i>Applied Sciences (Switzerland)</i> , 2023, 13, 4689.	1.3	1
1235	Synergetic N-doped carbon with MoPd alloy for robust oxygen reduction reaction. <i>Nano Research</i> , 2023, 16, 8996-9002.	5.8	0
1236	Recent Progress of Metal-Oxide-Based Catalysts for Non-Oxidative Coupling of Methane to Ethane and Hydrogen. <i>Catalysts</i> , 2023, 13, 719.	1.6	1
1237	Analysis of the operating characteristics of hydrogen PEM fuel cell and battery onelectric vehicle in different driving cycles. <i>Environmental Progress and Sustainable Energy</i> , 2023, 42, .	1.3	0
1238	An electrochemically fabricated cobalt iron oxyhydroxide bifunctional electrode for an anion exchange membrane water electrolyzer. <i>Dalton Transactions</i> , 0, , .	1.6	0
1239	Synergistic interface between metal Cu nanoparticles and CoO for highly efficient hydrogen production from ammonia borane. <i>RSC Advances</i> , 2023, 13, 11569-11576.	1.7	2
1240	Tuning the surface hydrophilicity of a C ₃ N ₄ nanosheet for efficient photocatalytic H ₂ evolution coupled with microplastic degradation. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 27599-27610.	3.8	7

#	ARTICLE	IF	CITATIONS
1241	Advances in molten media technologies for methane pyrolysis. <i>Advances in Chemical Engineering</i> , 2023, , 319-356.	0.5	3
1243	Carbon-low, renewable hydrogen production from methanol steam reforming in membrane reactors – a review. <i>Chemical Engineering and Processing: Process Intensification</i> , 2023, 189, 109382.	1.8	8
1244	Investigation of the cyclo[12]carbon nanoring and respective analogues (Al ₆ N ₆ and B ₆ N ₆) as support for the single atom catalysis of the hydrogen evolution reaction. <i>Materials Science in Semiconductor Processing</i> , 2023, 162, 107544.	1.9	6
1252	Sustainable Clean Energy Production from the Bio-electrochemical Process Using Cathode as Nanocatalyst. , 2023, , 2247-2276.		0
1254	Solar Thermochemical Water-Splitting. , 2023, , 295-328.		0
1277	Bioprospecting and Mechanisms of Cyanobacterial Hydrogen Production and Recent Development for Its Enhancement as a Clean Energy. , 2023, , 107-131.		0
1301	3D printing electrodes for energy conversion. , 2023, , 1-22.		0
1302	Measuring the Effectiveness of Organizational Development Strategies During Unprecedented Times. <i>Advances in Human Resources Management and Organizational Development Book Series</i> , 2023, , 156-175.	0.2	0
1306	Hybrid water electrolysis with integrated and cascading reactions using two-dimensional electrocatalysts. <i>Journal of Materials Chemistry A</i> , 2023, 11, 16433-16457.	5.2	5
1307	Shining light on layered metal phosphosulphide catalysts for efficient water electrolysis: preparation, promotion strategies, and perspectives. <i>Green Chemistry</i> , 2023, 25, 6170-6187.	4.6	2
1320	Hydrogen Energy and Sustainable Development. , 2023, , .		0
1334	Introduction to Hydrogen as a Clean Source of Energy. , 2023, , .		3
1342	A mini review on recent progress of steam reforming of ethanol. <i>RSC Advances</i> , 2023, 13, 23991-24002.	1.7	0
1343	Research progress on MOFs and their derivatives as promising and efficient electrode materials for electrocatalytic hydrogen production from water. <i>RSC Advances</i> , 2023, 13, 24393-24411.	1.7	2
1365	Microalgal farming for biofuel production: Extraction, conversion, and characterization. , 2024, , 43-80.		0
1369	Hydrogen production methods based on the primary energy sources. , 2023, , 87-183.		0
1385	Microalgal liquid, solid, and gaseous biofuels: Cultivation and production strategies for biofuel accumulation. , 2024, , 113-144.		0
1386	Biofuels from microalgae: Growing conditions, cultivation strategies, and techno-commercial challenges. , 2024, , 305-340.		0

#	ARTICLE	IF	CITATIONS
1392	Technology development in the nexus of renewable energy, water, and the environment. , 2024, , 257-313.		0
1395	Electrochemical hydrogen production: sustainable hydrogen economy. Green Chemistry, 2023, 25, 9543-9573.	4.6	3
1405	Recent advances in polyoxometalate-based materials and their derivatives for electrocatalysis and energy storage. Materials Chemistry Frontiers, 2024, 8, 732-768.	3.2	2
1414	Analysis and Optimization of Heat Transport for the Purpose of Maximizing the Potential of Solar Ponds in Sustainable Energy Applications. , 0, , .		0
1416	Optimal Operation of Green Hydrogen Generation Plant with Solar PV, Renewable Energy Certificates and Virtual Battery Ledger. , 2023, , .		0
1422	Biohydrogen Production and Its Integration with Industrial and Urban Effluent Recycling. Engineering Materials, 2024, , 169-183.	0.3	0
1431	Green Energetic Materials. , 2023, , .		0
1434	Hollow cubic ternary PdCuB nanocage electrocatalysts with greatly enhanced catalytic performance for formic acid oxidation. Chemical Communications, 0, , .	2.2	0
1467	Application of nanotechnology in hydrogen production from biomass: A critical review. Advanced Composites and Hybrid Materials, 2024, 7, .	9.9	2
1480	Green Hydrogen Production in Bangladesh: A Zero Carbon Initiative. , 2023, , .		0
1484	Evolving Microgrid Network and Power Market. Evolutionary Economics and Social Complexity Science, 2024, , 169-195.	0.4	0
1490	Concentrated Solar Thermal-Based Hydrogen Generation: Some Recent Findings and a Proposal for Experiment Setup. Advances in Sustainability Science and Technology, 2024, , 205-215.	0.4	0
1492	An overview of hydrogen production techniques: Challenges and limiting factors in achieving wide-scale productivity. AIP Conference Proceedings, 2024, , .	0.3	0