

Hydrogen from solar energy, a clean energy carrier from

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Citation Report

#	ARTICLE	IF	CITATIONS
1	A review of melting and freezing processes of PCM/nano-PCM and their application in energy storage. Energy, 2020, 211, 118698.	4.5	271
2	Levelized costs of energy and hydrogen of wind farms and concentrated photovoltaic thermal systems. A case study in Morocco. International Journal of Hydrogen Energy, 2020, 45, 31632-31650.	3.8	51
3	Solar thermal harvesting based on self-doped nanocermet: Structural merits, design strategies and applications. Renewable and Sustainable Energy Reviews, 2020, 134, 110277.	8.2	56
4	A new design of catalytic tube reactor for hydrogen production from ethanol steam reforming. Fuel, 2020, 281, 118746.	3.4	24
5	Broadband polarization-insensitive and wide-angle solar energy absorber based on tungsten ring-disc array. Nanoscale, 2020, 12, 23077-23083.	2.8	143
6	Photo-recycling the Sacrificial Electron Donor: Towards Sustainable Hydrogen Evolution in a Biphasic System. ChemPhysChem, 2020, 21, 2630-2633.	1.0	4
7	Siting and sizing of the hydrogen refueling stations with on-site water electrolysis hydrogen production based on robust regret. International Journal of Energy Research, 2020, 44, 8340-8361.	2.2	10
8	The Role of Hydrocarbons in the Global Energy Agenda: The Focus on Liquefied Natural Gas. Resources, 2020, 9, 59.	1.6	91
9	Analyzing the Investments Strategies for Renewable Energies Based on Multi-Criteria Decision Model. IEEE Access, 2020, 8, 118818-118840.	2.6	81
10	Towards Non-Mechanical Hybrid Hydrogen Compression for Decentralized Hydrogen Facilities. Energies, 2020, 13, 3145.	1.6	51
11	Modeling and experimental assessment of the novel $\text{H}^{+} \text{H}^{+} \text{O}$ electrolysis for hydrogen generation in the sulfur-iodine cycle. International Journal of Energy Research, 2020, 44, 6285-6296.	2.2	5
12	Performance investigation of a multi-nozzle ejector for proton exchange membrane fuel cell system. International Journal of Energy Research, 2021, 45, 3031-3048.	2.2	29
13	Solar hydrogen production from seawater splitting using mixed-valence titanium phosphite photocatalyst. Journal of Environmental Chemical Engineering, 2021, 9, 104826.	3.3	9
14	Evaluation of sustainable hydrogen production options using an advanced hybrid MCDM approach: A case study. International Journal of Hydrogen Energy, 2021, 46, 4567-4591.	3.8	49
15	Photocatalytic reforming of aqueous phase obtained from liquefaction of household mixed waste biomass for renewable bio-hydrogen production. Bioresource Technology, 2021, 321, 124529.	4.8	16
16	Zr doping and carbon coating endow $\text{NaTi}_2(\text{PO}_4)_3$ electrode with enhanced performances. Journal of Alloys and Compounds, 2021, 859, 157836.	2.8	10
17	Co-decorated reduced graphene/titanium nitride composite as an active oxygen reduction reaction catalyst with superior stability. International Journal of Energy Research, 2021, 45, 1587-1598.	2.2	16
18	Experimental investigation on absorption and desorption characteristics of $\text{La}_{0.9}\text{Ce}_{0.1}\text{Ni}_5$ for hydrogen storage application. International Journal of Energy Research, 2021, 45, 2870-2881.	2.2	3

#	ARTICLE	IF	CITATIONS
19	Interfacing RuO ₂ with Pt to induce efficient charge transfer from Pt to RuO ₂ for highly efficient and stable oxygen evolution in acidic media. Journal of Materials Chemistry A, 2021, 9, 14352-14362.	5.2	25
20	Metal Organic Frameworks (MOFs) for Supercapacitor. , 2021, , 414-414.		4
21	Efficiency gains for thermally coupled solar hydrogen production in extreme cold. Energy and Environmental Science, 2021, 14, 4410-4417.	15.6	8
22	Hydrogen-Energy Vector Within a Sustainable Energy System for Stationary Applications. Advances in Computer and Electrical Engineering Book Series, 2021, , 1-21.	0.2	2
23	Capacitive Load-Based Smart OTF for High Power Rated SPV Module. Energies, 2021, 14, 788.	1.6	6
24	Hydrogenation of Toluene to Methyl Cyclohexane over PtRh Bimetallic Nanoparticle-Encaged Hollow Mesoporous Silica Catalytic Nanoreactors. ACS Omega, 2021, 6, 5846-5855.	1.6	8
25	Advantages of hydrogen addition in a passive pre-chamber ignited γ -SI engine for passenger car applications. International Journal of Energy Research, 2021, 45, 13219-13237.	2.2	21
26	Graphene-supported γ -LaFeO ₃ for photocatalytic hydrogen energy production. International Journal of Energy Research, 2021, 45, 12898-12914.	2.2	11
27	Liquid-Phase Deposition Synthesis of ZIF-67-Derived Synthesis of Co ₃ O ₄ @TiO ₂ Composite for Efficient Electrochemical Water Splitting. Metals, 2021, 11, 420.	1.0	11
28	Thermal performance assessment of a thermal energy storage tank: effect of aspect ratio and tilted angle. International Journal of Energy Research, 2021, 45, 11157-11178.	2.2	11
29	The Role of Carbon Capture and Storage in the Energy Transition. Energy & Fuels, 2021, 35, 7364-7386.	2.5	116
30	Research Photocatalytic Water-splitting based on big data mining technology. Journal of Physics: Conference Series, 2021, 1848, 012021.	0.3	1
31	Biomass from Palm Oil Waste as a Renewable Energy Source with Community Benefits. International Journal Paper Advance and Scientific Review, 2021, 2, 30-36.	0.0	0
32	Novel Multi-Time Scale Deep Learning Algorithm for Solar Irradiance Forecasting. Energies, 2021, 14, 2404.	1.6	32
33	The performance of bismuth-based compounds in photocatalytic applications. Surfaces and Interfaces, 2021, 23, 100927.	1.5	31
34	Hydrogen separation using polybenzimidazole membrane with palladium nanoparticles stabilized by polyvinylpyrrolidone. International Journal of Energy Research, 2021, 45, 15171-15181.	2.2	6
35	Pore diameters of Ni/ZrO ₂ catalysts affect properties of the coke in steam reforming of acetic acid. International Journal of Hydrogen Energy, 2021, 46, 23642-23657.	3.8	19
36	The role of solar energy demand in the relationship between carbon pricing and environmental degradation: A blessing in disguise. Journal of Public Affairs, 2022, 22, e2702.	1.7	17

#	ARTICLE	IF	CITATIONS
37	Vibrational Perturbation of the [FeFe] Hydrogenase H-Cluster Revealed by ¹³ C ² -ADT Labeling. Journal of the American Chemical Society, 2021, 143, 8237-8243.	6.6	4
38	Review-Emerging Applications of g-C ₃ N ₄ Films in Perovskite-Based Solar Cells. ECS Journal of Solid State Science and Technology, 0, , .	0.9	10
39	IrW nanochannel support enabling ultrastable electrocatalytic oxygen evolution at 2% in acidic media. Nature Communications, 2021, 12, 3540.	5.8	89
40	HYDROGEN ADSORPTION AND STORAGE ON PALLADIUM-FUNCTIONALIZED GRAPHYNE AND ITS BORON NITRIDE ANALOGUE. Journal of Structural Chemistry, 2021, 62, 835-844.	0.3	1
41	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
42	Hydrogel photocatalysts for efficient energy conversion and environmental treatment. Frontiers in Energy, 2021, 15, 577-595.	1.2	14
43	A first-principles research of two-dimensional AlN/C ₂ N van der Waals heterostructure as photocatalyst. Physica E: Low-Dimensional Systems and Nanostructures, 2021, 132, 114754.	1.3	15
44	Economic-environmental stochastic scheduling for hydrogen storage-based smart energy hub coordinated with integrated demand response program. International Journal of Energy Research, 2021, 45, 20232-20257.	2.2	21
45	Applications of Atomic Layer Deposition in Design of Systems for Energy Conversion. Small, 2021, 17, e2102088.	5.2	26
46	Review on bipolar plates for low-temperature polymer electrolyte membrane water electrolyzer. International Journal of Energy Research, 2021, 45, 20583-20600.	2.2	56
47	Assessment of the solar energy accommodation capability of the district integrated energy systems considering the transmission delay of the heating network. International Journal of Electrical Power and Energy Systems, 2021, 130, 106821.	3.3	15
48	Recent Advances in Electrocatalysts toward Alcohol-Assisted, Energy-Saving Hydrogen Production. ACS Applied Energy Materials, 2021, 4, 8685-8701.	2.5	49
49	In-situ electrosynthesis Cu-PtBTC MOF-derived nanocomposite modified glassy carbon electrode for highly performance electrocatalysis of hydrogen evolution reaction. Journal of Electroanalytical Chemistry, 2021, 900, 115716.	1.9	9
50	Solar photocatalytic H ₂ production over CeO ₂ -based catalysts: Influence of chemical and structural modifications. Catalysis Today, 2021, 380, 187-198.	2.2	18
51	The bimetallic and the anchoring group effects on both optical and charge transport properties of hexaphyrin amethyrin. New Journal of Chemistry, 2021, 45, 6521-6534.	1.4	4
52	Soluble polyfluorene dots as photocatalyst for light-driven methylene blue degradation and hydrogen generation. New Journal of Chemistry, 2021, 45, 1423-1429.	1.4	5
53	Barriers to implementation of hydrogen initiatives in the context of global energy sustainable development. Journal of Mining Institute, 0, 244, 421.	0.8	18
54	Barriers to implementation of hydrogen initiatives in the context of global energy sustainable development. Journal of Mining Institute, 0, 244, 428-438.	0.8	62

#	ARTICLE	IF	CITATIONS
55	Boron-doping effect on the enhanced hydrogen storage of titanium-decorated porous graphene: A first-principles study. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 40301-40311.	3.8	16
56	<i>Ab Initio</i> Partition Functions and Thermodynamic Quantities for the Molecular Hydrogen Isotopologues. <i>Journal of Physical Chemistry A</i> , 2021, 125, 9226-9241.	1.1	3
57	Facile Synthesis of Copper Oxide-Cobalt Oxide/Nitrogen-Doped Carbon (Cu ₂ O-Co ₃ O ₄ /CN) Composite for Efficient Water Splitting. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 9974.	1.3	25
58	DFT Probe into the Mechanism of Formic Acid Dehydrogenation Catalyzed by Cp*Co, Cp*Rh, and Cp*Ir Catalysts with 4,4'-Amino-/Alkylamino-Functionalized 2,2'-Bipyridine Ligands. <i>Journal of Physical Chemistry A</i> , 2021, 125, 9478-9488.	1.1	7
59	Review on CO _x -free hydrogen from methane cracking: Catalysts, solar energy integration and applications. <i>Energy Conversion and Management: X</i> , 2021, 12, 100117.	0.9	4
60	Effects of foam structure on thermochemical characteristics of porous-filled solar reactor. <i>Energy</i> , 2022, 239, 122219.	4.5	26
61	Host/Guest Nanostructured Photoanodes Integrated with Targeted Enhancement Strategies for Photoelectrochemical Water Splitting. <i>Advanced Science</i> , 2022, 9, e2103744.	5.6	31
62	Performance assessment of a dual loop organic rankine cycle powered by a parabolic trough collector for ammonia and hydrogen production purpose. <i>International Journal of Ambient Energy</i> , 2022, 43, 6149-6166.	1.4	3
63	Performance analysis of a solar based waste to energy multigeneration system. <i>Sustainable Energy Technologies and Assessments</i> , 2022, 50, 101729.	1.7	7
64	Resource efficiency as a guide to clean and affordable energy: A case study on Trinidad and Tobago. <i>Chemical Engineering Research and Design</i> , 2022, 178, 405-420.	2.7	7
65	In situ configuration of dual S-scheme BP/(Ti ₃ C ₂ T _x @TiO ₂) heterojunction for broadband spectrum solar-driven photocatalytic H ₂ evolution in pure water. <i>Journal of Colloid and Interface Science</i> , 2022, 610, 13-23.	5.0	20
66	Economic approach for CO ₂ valorization from hydrothermal carbonization gaseous streams via reverse water-gas shift reaction. <i>Fuel</i> , 2022, 313, 123055.	3.4	6
67	Comparative analysis of extreme solar irradiance between a fixed photovoltaic system and a solar tracker in the Peruvian highlands. , 2021, , .		2
68	Cathode Materials for Rechargeable Lithium-Sulfur Batteries: Current Progress and Future Prospects. <i>ChemElectroChem</i> , 2022, 9, .	1.7	12
69	Power Generation Analysis of Terrestrial Ultraviolet-Assisted Solid Oxide Electrolyzer Cell. <i>Energies</i> , 2022, 15, 996.	1.6	0
70	Structural Model of Power Grid Stabilization in the Green Hydrogen Supply Chain System—Conceptual Assumptions. <i>Energies</i> , 2022, 15, 664.	1.6	10
71	Comparison of photocatalytic performances of solar-driven hybrid catalysts for hydrogen energy evolution from 1,8'-Diazabicyclo[5.4.0]undec-7-ene (DBU) solution. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 8841-8857.	3.8	2
72	Influence of an electrified interface on the entropy and energy of solvation of methanol oxidation intermediates on platinum(111) under explicit solvation. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 4251-4261.	1.3	5

#	ARTICLE	IF	CITATIONS
73	Three dimensional Co ₃ S ₄ nanowires as multifunctional electrode for supercapacitor and urea electrolysis. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2022, 278, 115654.	1.7	3
75	Plastic Waste Precursor-Derived Fluorescent Carbon and Construction of Ternary FCs@CuO@TiO ₂ Hybrid Photocatalyst for Hydrogen Production and Sensing Application. <i>Energies</i> , 2022, 15, 1734.	1.6	8
76	Visible-Light-Enhanced Electrocatalytic Hydrogen Evolution Using Electrodeposited Molybdenum Oxide. <i>Journal of the Electrochemical Society</i> , 2022, 169, 034529.	1.3	3
77	Bubble-Open lithography: Fundamentals and applications. <i>Aggregate</i> , 2022, 3, .	5.2	8
78	p-type ZnO for photocatalytic water splitting. <i>APL Materials</i> , 2022, 10, .	2.2	14
79	Ni ₃ Mo ₃ N coupled with nitrogen-rich carbon microspheres as an efficient hydrogen evolution reaction catalyst and electrochemical sensor for H ₂ O ₂ detection. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 14906-14915.	3.8	9
80	Organic-Inorganic Hybrid Film MLAs Built on the Silicon Solar Cells to Improve the Photoelectric Conversion Efficiency. <i>Coatings</i> , 2022, 12, 393.	1.2	2
81	Thermodynamic evaluation of electricity and hydrogen cogeneration from solar energy and fossil fuels. <i>Energy Conversion and Management</i> , 2022, 256, 115344.	4.4	23
82	Preparation of CoAg Modified Carbon Felt Electrodes for Alkaline Water Electrolysis. <i>Russian Journal of Physical Chemistry A</i> , 2022, 96, 664-672.	0.1	3
83	Controllable vapor transport deposition of efficient Sb ₂ (S,Se) ₃ solar cells via adjusting evaporation source area. <i>Journal of Alloys and Compounds</i> , 2022, 906, 164320.	2.8	5
84	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
85	Modeling and Control of Photovoltaic Hydrogen Production System Adapting to Power Fluctuations. , 2021, , .		1
86	Performance Evaluation of Solar Power Plants: A Review and a Case Study. <i>Processes</i> , 2021, 9, 2253.	1.3	9
87	Effects of B-Site Al Doping on Microstructure Characteristics and Hydrogen Production Performance of Novel Lanixal1-Xo3-l" Perovskite in Methanol Steam Reforming. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
88	Subdiffusive High-Pressure Hydrogen Gas Dynamics in Elastomers. <i>Macromolecules</i> , 2022, 55, 3788-3800.	2.2	6
89	The role of carbon taxes, clean fuels, and renewable energy in promoting sustainable development: How green is nuclear energy?. <i>Renewable Energy</i> , 2022, 193, 167-178.	4.3	43
90	Broadband solar absorbers with excellent thermal radiation efficiency based on W-Al ₂ O ₃ stack of cubes. <i>International Journal of Thermal Sciences</i> , 2022, 179, 107683.	2.6	12
91	Unveiling the mechanistic landscape of formic acid dehydrogenation catalyzed by Cp-M(III) catalysts (M) Tj ETQq1 1 0.784314 rgB / Journal of Hydrogen Energy, 2022, 47, 21736-21744.	3.8	1

#	ARTICLE	IF	CITATIONS
92	Research progress of proton exchange membrane fuel cells utilizing in high altitude environments. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 24945-24962.	3.8	30
93	Effect of asymmetric power distribution in bipolar reactive sputtering on the optoelectronic and microstructure properties of titanium dioxide for solar water splitting. <i>Vacuum</i> , 2022, , 111290.	1.6	3
94	Investigation of an integrated thermochemical hydrogen production and high temperature solar thermochemical energy storage and CO ₂ capture process. <i>Applied Thermal Engineering</i> , 2022, 214, 118820.	3.0	21
95	Solar thermal-activated photocatalysis for hydrogen production and aqueous triethanolamine polymerization. <i>Journal of Materials Chemistry A</i> , 2022, 10, 19984-19993.	5.2	4
96	Inverse Design of Local Solar Flux Distribution for a Solar Methanol Reforming Reactor Based on Shape Optimization. <i>Frontiers in Energy Research</i> , 0, 10, .	1.2	5
97	Options for demand side management in biofuel production: A systematic review. <i>International Journal of Energy Research</i> , 2022, 46, 17733-17754.	2.2	3
98	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
99	A review of key components of hydrogen recirculation subsystem for fuel cell vehicles. <i>Energy Conversion and Management: X</i> , 2022, 15, 100265.	0.9	8
100	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
101	Integration of renewable energy, environmental policy stringency, and climate technologies in realizing environmental sustainability: Evidence from OECD countries. <i>Renewable Energy</i> , 2022, 196, 1376-1384.	4.3	20
102	Enhanced electrocatalytic performance of Ni-based phosphides via dual regulation of Co-introducing and graphene-support for hydrogen evolution. <i>Journal of Alloys and Compounds</i> , 2022, 923, 166450.	2.8	1
103	Recent progress in use of MXene in perovskite solar cells: for interfacial modification, work-function tuning and additive engineering. <i>Nanoscale</i> , 2022, 14, 13018-13039.	2.8	22
104	Permeation barriers for hydrogen embrittlement prevention in metals – A review on mechanisms, materials suitability and efficiency. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 32707-32731.	3.8	49
105	Sun, heat and electricity. A comprehensive study of non-pollutant alternatives to produce green hydrogen. <i>International Journal of Energy Research</i> , 2022, 46, 17999-18028.	2.2	5
106	Selection criteria and ranking for sustainable hydrogen production options. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 40118-40137.	3.8	30
107	Hydrogen production through renewable and non-renewable energy processes and their impact on climate change. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 33112-33134.	3.8	172
108	Hydrogen and carbon dioxide uptake on scalable and inexpensive microporous carbon foams. <i>Microporous and Mesoporous Materials</i> , 2022, 343, 112141.	2.2	4
109	A comprehensive review on hydrogen production and utilization in North America: Prospects and challenges. <i>Energy Conversion and Management</i> , 2022, 269, 115927.	4.4	64

#	ARTICLE	IF	CITATIONS
110	Influence of urea on electrocatalytic oxidation of ethylene glycol on porous CuOx/Cu foam anode in alkaline medium. International Journal of Electrochemical Science, 0, , ArticleID:221016.	0.5	0
111	Ruthenium oxychloride supported by manganese oxide for stable oxygen evolution in acidic media. Journal of Materials Chemistry A, 2022, 10, 20964-20974.	5.2	11
112	A Brief Review of Poly(Vinyl Alcohol)-Based Anion Exchange Membranes for Alkaline Fuel Cells. Polymers, 2022, 14, 3565.	2.0	23
113	Research on multi-objective optimal scheduling strategy of new energy hydrogen production system. , 2022, , .		0
114	Nanosensors Based on a Single ZnO:Eu Nanowire for Hydrogen Gas Sensing. ACS Applied Materials & Interfaces, 2022, 14, 41196-41207.	4.0	15
115	The potential of hydrogen production from high and low-temperature electrolysis methods using solar and nuclear energy sources: the transition to a hydrogen economy in Brazil. International Journal of Hydrogen Energy, 2022, 47, 34727-34738.	3.8	22
116	HYDROGEN ADSORPTION AND STORAGE ON PALLADIUM-FUNCTIONALIZED C20 BOWL AND C20H10 BOWL MOLECULE INCLUDING HYDROGEN SATURATION. Journal of Structural Chemistry, 2022, 63, 1399-1408.	0.3	0
117	Hydrogen release mechanisms of MgH ₂ over NiN ₄ -embedded graphene nanosheet: First-principles calculations. International Journal of Hydrogen Energy, 2022, 47, 39549-39562.	3.8	3
118	Hierarchical porous metal-organic gels and derived materials: from fundamentals to potential applications. Chemical Society Reviews, 2022, 51, 9068-9126.	18.7	30
119	Real-Time Simulation of an Electrolyzer with a Diode Rectifier and a Three-Phase Interleaved Buck Converter. , 2022, , .		1
120	A review of water electrolysis-based systems for hydrogen production using hybrid/solar/wind energy systems. Environmental Science and Pollution Research, 2022, 29, 86994-87018.	2.7	52
121	Photocatalytic Hydrogen Production from Glycerol Aqueous Solutions as Sustainable Feedstocks Using Zr-Based UiO-66 Materials under Simulated Sunlight Irradiation. Nanomaterials, 2022, 12, 3808.	1.9	8
122	Layered Double Hydroxides for Photo(electro)catalytic Applications: A Mini Review. Nanomaterials, 2022, 12, 3525.	1.9	7
123	Integrated design of solar concentrator and thermochemical reactor guided by optimal solar radiation distribution. Energy, 2023, 263, 125828.	4.5	15
124	Overview of Green Energy as a Real Strategic Option for Sustainable Development. Energies, 2022, 15, 8573.	1.6	20
125	Optimization and Techno-Economic Appraisal of Parabolic Trough Solar Power Plant under Different Scenarios: A Case Study of Morocco. Energies, 2022, 15, 8485.	1.6	5
126	Loss calculation and thermal analysis of ultra-high speed permanent magnet motor. Heliyon, 2022, 8, e11350.	1.4	4
127	Advanced nanomaterials for highly efficient CO ₂ photoreduction and photocatalytic hydrogen evolution. Science and Technology of Advanced Materials, 2022, 23, 866-894.	2.8	7

#	ARTICLE	IF	CITATIONS
128	Pyrolysis-reforming of cellulose to simultaneously produce hydrogen and heavy organics. <i>Energy</i> , 2023, 265, 126363.	4.5	4
129	Two dimensional (2D) materials and biomaterials for water desalination; structure, properties, and recent advances. <i>Environmental Research</i> , 2023, 219, 114998.	3.7	26
130	Adhesion of Polymer to TiO ₂ Particles Decreases Photocatalytic Activity of Polyelectrolyte Hydrogel Photocatalyst. <i>ChemistrySelect</i> , 2022, 7, .	0.7	0
131	Estimating hydrogen absorption energy on different metal hydrides using Gaussian process regression approach. <i>Scientific Reports</i> , 2022, 12, .	1.6	4
132	Hydrogen Production Methods Based on Solar and Wind Energy: A Review. <i>Energies</i> , 2023, 16, 757.	1.6	22
133	Enhanced Photocatalytic Hydrogen Evolution and Antibacterial Activities of Ternary Chevrel Phases. <i>ChemCatChem</i> , 2023, 15, .	1.8	2
134	Graphene-Based Derivatives Heterostructured Catalytic Systems for Sustainable Hydrogen Energy via Overall Water Splitting. <i>Catalysts</i> , 2023, 13, 109.	1.6	11
135	Mo-Mediated Transition of the Lattice to Long-Range Disorder Enables Ultra-High Current Density Hydrogen Production at Low Potentials. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	12
136	Solar Energy: Applications, Trends Analysis, Bibliometric Analysis and Research Contribution to Sustainable Development Goals (SDGs). <i>Sustainability</i> , 2023, 15, 1418.	1.6	36
137	Steam reforming of ethanol by non-noble metal catalysts. <i>Renewable and Sustainable Energy Reviews</i> , 2023, 175, 113184.	8.2	16
138	Experimental analysis of photovoltaic thermal system assisted with nanofluids for efficient electrical performance and hydrogen production through electrolysis. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 21029-21037.	3.8	8
139	Composition and Morphology Modulation of Bimetallic Nitride Nanostructures on Nickel Foams for Efficient Oxygen Evolution Electrocatalysis. <i>Catalysts</i> , 2023, 13, 230.	1.6	5
140	Construction of a NiFe-LDH catalyst with a three-dimensional unified gas diffusion layer structure via a facile acid etching route for the oxygen evolution reaction. <i>Materials Chemistry Frontiers</i> , 2023, 7, 1335-1344.	3.2	3
141	Aggregation-induced emission materials: a platform for diverse energy transformation and applications. <i>Journal of Materials Chemistry A</i> , 2023, 11, 4850-4875.	5.2	6
142	Recent progress for hydrogen production from ammonia and hydrous hydrazine decomposition: A review on heterogeneous catalysts. <i>Catalysis Today</i> , 2023, 423, 114022.	2.2	9
143	Modelling of an Ultraviolet based Hydrogen and Oxygen Generation System. , 2022, , .		0
144	Polymeric phase change material networks based on multi-telechelic polyethylene glycol-derived multimer structures for thermal energy storage. <i>Chemical Engineering Journal</i> , 2023, 462, 142164.	6.6	5
145	Efficient hydrogen production system with complementary utilization of methane and full-spectrum solar energy. <i>Energy Conversion and Management</i> , 2023, 283, 116951.	4.4	6

#	ARTICLE	IF	CITATIONS
146	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
147	MXenes for perovskite solar cells: Progress and prospects. <i>Journal of Energy Chemistry</i> , 2023, 81, 443-461.	7.1	3
148	The green-ol (green-alcohol) economy. <i>Nano Energy</i> , 2023, 110, 108373.	8.2	4
149	An integrated SWARA-CODAS decision-making algorithm with spherical fuzzy information for clean energy barriers evaluation. <i>Expert Systems With Applications</i> , 2023, 223, 119884.	4.4	8
150	Facilitating interface charge transfer via constructing NiO/NiCo ₂ O ₄ heterostructure for oxygen evolution reaction under alkaline conditions. <i>Journal of Colloid and Interface Science</i> , 2023, 643, 214-222.	5.0	10
151	Photoreforming of Waste Polymers for Sustainable Hydrogen Fuel and Chemicals Feedstock: Waste to Energy. <i>Chemical Reviews</i> , 2023, 123, 4443-4509.	23.0	47
152	Theoretical calculation of hydrogen evolution reaction in two-dimensional As ₂ X ₃ (X=S, Se, Te) doped with transition metal atoms. <i>Applied Surface Science</i> , 2023, 616, 156475.	3.1	6
153	Optimizing the Superhydrophobicity of the Composite PDMS/PUA Film Produced by a R2R System. <i>Industrial & Engineering Chemistry Research</i> , 2023, 62, 2469-2477.	1.8	2
154	A Review on Methanol as a Clean Energy Carrier: Roles of Zeolite in Improving Production Efficiency. <i>Energies</i> , 2023, 16, 1482.	1.6	6
155	Selection of iron-based oxygen carriers for two-step solar thermochemical splitting of carbon dioxide. <i>Energy Conversion and Management</i> , 2023, 279, 116772.	4.4	10
156	Conjugated In-plane Heterostructure Enables Long-Lived Shallow Trapping in Graphitic Carbon Nitride for Increased Photocatalytic Hydrogen Generation. <i>Small</i> , 2023, 19, .	5.2	17
157	Handily etching nickel foams into catalyst-substrate fusion self-stabilized electrodes toward industrial-level water electrolysis. , 2023, 5, .		9
158	Co-electrolysis process for syngas production. , 2023, , 237-260.		0
159	Treasure trove for efficient hydrogen evolution through water splitting using diverse perovskite photocatalysts. <i>Materials Today Chemistry</i> , 2023, 29, 101387.	1.7	22
160	Visible-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
161	Indirect Z-scheme hydrogen production photocatalyst based on two-dimensional GeC/MoSi ₂ N ₄ van der Waals heterostructures. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 18301-18314.	3.8	9
162	Techno-Economic Analysis of Photovoltaic Hydrogen Production Considering Technological Progress Uncertainty. <i>Sustainability</i> , 2023, 15, 3580.	1.6	5
163	Effects of Alternating Magnetic Fields on the OER of Heterogeneous Core-Shell Structured NiFe ₂ O ₄ @(Ni, Fe)S/P. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 11631-11641.	4.0	16

#	ARTICLE	IF	CITATIONS
164	High Absorptivity and Ultra-Wideband Solar Absorber Based on Ti-Al ₂ O ₃ Cross Elliptical Disk Arrays. <i>Coatings</i> , 2023, 13, 531.	1.2	53
165	A systematic review on green hydrogen for off-grid communities – technologies, advantages, and limitations. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 19751-19771.	3.8	14
166	A Roadmap with Strategic Policy toward Green Hydrogen Production: The Case of Iraq. <i>Sustainability</i> , 2023, 15, 5258.	1.6	12
167	The effect of oxidative functionalization of carbon nanotubes on the morphological, optical, and photoelectrochemical properties of modified titanium dioxide photoanodes. <i>Journal of Materials Science</i> , 2023, 58, 5372-5388.	1.7	2
168	An Overview of Major Synthetic Fuels. <i>Energies</i> , 2023, 16, 2834.	1.6	4
169	Prospects and challenges of renewable hydrogen generation in Bangladesh. <i>International Journal of Hydrogen Energy</i> , 2023, 48, 20588-20612.	3.8	4
170	Energy Transfer to Molecular Adsorbates by Transient Hot Electron Spillover. <i>Nano Letters</i> , 2023, 23, 2719-2725.	4.5	4
171	Interfacial engineering by applying double CdS structure electron transport layer for high-performance Sb ₂ (S,Se) ₃ solar cells. <i>Ceramics International</i> , 2023, 49, 22471-22478.	2.3	4
172	Construction of NiCo-layered double hydroxide/Mn _{0.2} Cd _{0.8} S S-scheme heterojunction with electrostatic self-assembly for efficient photocatalytic hydrogen evolution. <i>Journal of Alloys and Compounds</i> , 2023, 953, 170085.	2.8	1
173	Synthesis of Alumina-Supported RhSn Alloy Nanocatalysts by Using Rh@Sn Core-Shell Nanoparticle Precursors for Toluene Catalytic Hydrogenation. <i>Industrial & Engineering Chemistry Research</i> , 0, , .	1.8	0
174	Effects of Atlanticists policies and visions: The legacy of colonialism in conservation. <i>Biological Conservation</i> , 2023, 282, 110070.	1.9	0
191	Hydrogen-Energy Vector Within a Sustainable Energy System for Mobile Applications. <i>Impact of Meat Consumption on Health and Environmental Sustainability</i> , 2023, , 1-31.	0.4	0
202	Sustainability Rhetoric in Modern Times. <i>Developments in Corporate Governance and Responsibility</i> , 2023, , 57-68.	0.1	0
208	Current Status of Hydrogen Energy Development. , 2023, , 19-56.		0
215	Optimal Sizing for Grid-connected Microgrid with Hydrogen Energy Storage Considering Ladder-type Carbon Trading and Source-load Interaction. , 2023, , .		0
222	Palm Oil – The Increasing Materiality of Deforestation and Biodiversity Risks in Indonesia and Malaysia. , 2023, , .		0
227	A review of progress in proton ceramic electrochemical cells: material and structural design, coupled with value-added chemical production. <i>Energy and Environmental Science</i> , 2023, 16, 5721-5770.	15.6	12
237	Robust Optimal Operation of Electric Hydrogen Coupled Systems with Consideration of Renewable Energy Uncertainties. , 2023, , .		0

#	ARTICLE	IF	CITATIONS
242	Hydrogen as an Energy Vector: Use Cases and Modelling. , 2023, , .		0
243	Control strategy and simulation analysis of wind-solar-storage integrated coupling hydrogen production system. , 2023, , .		0
255	<i>In situ</i> self-reconstructed hierarchical bimetallic oxyhydroxide nanosheets of metallic sulfides for high-efficiency electrochemical water splitting. Materials Horizons, 2024, 11, 1797-1807.	6.4	1
259	H2 EMS: A Simulation Approach of a Solar-Hydrogen Energy Management System. , 2024, , .		0