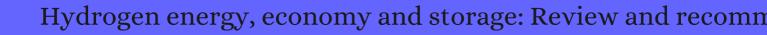
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1282	Daily-seasonal operation in net-zero energy building powered by hybrid renewable energies and hydrogen storage systems. 2019 , 201, 112156		50
1281	Improved hydrogen storage properties of Mg/MgH2 thanks to the addition of nickel hydride complex precursors. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 28848-28862	6.7	17
1280	On structural model of AB5-type multi-element hydrogen storage alloy. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 30208-30217	6.7	2
1279	Clean Hydrogen and Ammonia Synthesis in Paraguay from the Itaipu 14 GW Hydroelectric Plant. 2019 , 3, 87		3
1278	Catalytic effect of EG and MoS2 on hydrolysis hydrogen generation behavior of high-energy ball-milled Mg-10wt.%Ni alloys in NaCl solution powerful strategy for superior hydrogen generation performance. 2019 , 43, 8426		11
1277	Effect of boron substitution on hydrogen storage in Ca/DCV graphene: A first-principle study. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 27511-27528	6.7	19
1276	Aluminum-silicon hydride clusters for prospective hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 26459-26468	6.7	2
1275	Synthesis, structural characterization and thermal decomposition studies of (N2H5)2B12H12 and its solvates. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 27030-27038	6.7	5
1274	Three-dimensional electrochemical Bunsen reaction characteristics in the sulfur I bdine water splitting cycle for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 22841-2285	o ^{6.7}	4
1273	Liquid metal activated hydrogen production from waste aluminum for power supply and its life cycle assessment. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 17505-17514	6.7	18
1272	Numerical study of a laminar hydrogen diffusion flame based on the non-premixed finite-rate chemistry model; thermal NO assessment. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 20426-20	433	5
1271	Preliminary study on hydrogen storage for fuel of fuel cell using Fe3Al metal hydride system. 2019 , 396, 012008		
1270	Enhancement of Formic Acid Dehydrogenation Selectivity of Pd(111) Single Crystal Model Catalyst Surface via Brfisted Bases. 2019 , 123, 28777-28788		7
1269	2. Microreactors: Design methodologies, technology evolution, and applications to biofuels production. 2019 , 15-50		
1268	Recent advances in water-splitting electrocatalysts based on manganese oxide. 2019 , 2, 242-255		13

1267	Effects of Support Structure and Composition on the Activity of Cu N i Catalysts for Methanol Steam Reforming. 2019 , 55, 1230-1236		3
1266	Isothermal hydrogen production behavior and kinetics of bulk eutectic MgNi-based alloys in NaCl solution. 2020 , 826, 152363		8
1265	Life cycle cost assessment of a geothermal power assisted hydrogen energy system. 2020 , 83, 101737		15
1264	Synthesis of low-cost catalyst NiO(111) for CO2 hydrogenation into short-chain carboxylic acids. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 22281-22290	6.7	5
1263	Dark fermentative biohydrogen production from lignocellulosic biomass: Technological challenges and future prospects. 2020 , 117, 109484		74
1262	Effect of non-condensable gas on the performance of steam-water ejector in a trigeneration system for hydrogen production: An experimental and numerical study. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 20266-20281	6.7	1
1261	A critical review on the definitions used to calculate the energy efficiency coefficients of water electrolysis cells working under near ambient temperature conditions. 2020 , 447, 227350		37
1260	Hydrogen production for energy: An overview. International Journal of Hydrogen Energy, 2020, 45, 3847-	8 869	469
1259	P-doped 3D graphene network supporting uniformly vertical MoS2 nanosheets for enhanced hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 4043-4053	6.7	11
1258	Li4Zn3B4O11/Li2B2O4 Nanocomposites as a Potential Electrode Material for Electrochemical Hydrogen Storage; Insight of Fabrication and Morphology Controlling. 2020 , 9, 2028-2036		6
1257	Simulation and experimental study of the NOx reduction by unburned H2 in TWC for a hydrogen engine. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 20491-20500	6.7	3
1256	Operation of a stationary hydrogen energy system using TiFe-based alloy tanks under various weather conditions. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 207-215	6.7	9
1255	Hydrogen energy storage method selection using fuzzy axiomatic design and analytic hierarchy process. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 16227-16238	6.7	16
1254	Enhancing photocatalytic performance and solar absorption by schottky nanodiodes heterojunctions in mechanically resilient palladium coated TiO2/Si nanopillars by atomic layer deposition. 2020 , 392, 123702		14
1253	Diatom frustule-graphene based nanomaterial for room temperature hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 764-773	6.7	9
1252	Correlation between electrochemical properties of the CNTs/AB5 composite hydrogen storage alloys and their catalytic properties for KBH4. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 452-46	g .7	6
1251	Preparation, characterization and hydrogen storage studies of carbon nanotubes and their composites: A review. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 4653-4672	6.7	58
1250	Enhanced kinetics of MgH2 via in situ formed catalysts derived from MgCCo1.5Ni1.5. 2020 , 822, 153621		10

1249	Synthesis and Performance of MOF-Based Non-Noble Metal Catalysts for the Oxygen Reduction Reaction in Proton-Exchange Membrane Fuel Cells: A Review. 2020 , 10,		8
1248	Advances in the implementation of PVD-based techniques for the preparation of metal catalysts for the hydrolysis of sodium borohydride. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 33288-333	s69	3
1247	Design of three-dimensional nanotube-fullerene-interconnected framework for hydrogen storage. 2020 , 534, 147606		6
1246	Platinum doped iron carbide for the hydrogen evolution reaction: The effects of charge transfer and magnetic moment by first-principles approach. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 31825-31840	6.7	7
1245	Prioritization of potential locations for harnessing wind energy to produce hydrogen in Afghanistan. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 33169-33184	6.7	29
1244	A critical review on the principles, applications, and challenges of waste-to-hydrogen technologies. 2020 , 134, 110365		28
1243	Towards a large-scale integration of renewable energies in Morocco. 2020 , 32, 101806		23
1242	Hydrogen production through hydrolysis of sodium borohydride: Highly dispersed CoB particles immobilized in carbon nanofibers as a novel catalyst. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 32145-32156	6.7	12
1241	Hydrogen production through autothermal reforming of CH4: Efficiency and action mode of noble (M = Pt, Pd) and non-noble (M = Re, Mo, Sn) metal additives in the composition of Ni-M/Ce0.5Zr0.5O2/Al2O3 catalysts. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 33352-33369	6.7	12
1240	Enhanced thermodynamic properties of ZrNiH3 by substitution with transition metals (V, Ti, Fe, Mn and Cr). <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 25002-25012	6.7	5
1239	Is the H economy realizable in the foreseeable future? Part III: H usage technologies, applications, and challenges and opportunities. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 28217-28239	6.7	58
1238	Oxygen reduction reaction on nanostructured Pt-based electrocatalysts: A review. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 31775-31797	6.7	53
1237	Hydrogen storage properties of carbon aerogel synthesized by ambient pressure drying using new catalyst triethylamine. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 30818-30827	6.7	9
1236	Assessment of hydrogen supply solutions for hydrogen fueling station: A Shanghai case study. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 32884-32898	6.7	16
1235	Sugars as Novel, Effective, and Renewable Hydrogen Sources in Dehydrogenation and Catalytic Transfer Hydrogenation Reactions. 2020 , 8, 2000716		0
1234	Amorphous NiFeDH/NifuB supported on self-supporting expanded graphite sheet as efficient bifunctional electrocatalysts for overall water splitting. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 30387-30395	6.7	3
1233	Effects of hydrogen direct injection on combustion and emission characteristics of a hydrogen/Acetone-Butanol-Ethanol dual-fuel spark ignition engine under lean-burn conditions. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 34193-34203	6.7	18
1232	Effect of milling duration on hydrogen storage thermodynamics and kinetics of Mg-based alloy. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 33832-33845	6.7	8

1231	Hydrazine decomposition on nickel-embedded graphene. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 33407-33418	6.7	6
1230	Thermodynamic study of a hybrid PEMFC-solar energy multi-generation system combined with SOEC and dual Rankine cycle. 2020 , 226, 113512		16
1229	The analysis of dynamic operation of power-to-SNG system with hydrogen generator powered with renewable energy, hydrogen storage and methanation unit. 2020 , 213, 118802		20
1228	Quantitative valuation of hydrogen blending in European gas grids and its impact on the combustion process of large-bore gas engines. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 3253	4-3254	16 ¹⁵
1227	Use of cold start-up operations in the absence of external heat sources for fast fuel cell power and heat generation in a hydrogen energy system utilizing metal hydride tanks. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 32196-32205	6.7	0
1226	Precipitation of nanocrystalline LaH3 and Mg2Ni and its effect on de-/hydrogenation thermodynamics of Mg-rich alloys. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 32221-32233	6.7	1
1225	Power-to-methane, coupling CO2 capture with fuel production: An overview. 2020 , 132, 110057		41
1224	Development of an adaptive static-dynamic electrical model based on input electrical energy for PEM water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 18817-18830	6.7	13
1223	Mg2(Fe, Cr, Ni)HX complex hydride synthesis from austenitic stainless steel and magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 19440-19454	6.7	9
1222	Alternate Strategies for Solar Fuels from Carbon Dioxide. 2020 , 5, 2505-2507		6
1221	Single-Crystalline Mo-Nanowire-Mediated Directional Growth of High-Index-Faceted MoNi Electrocatalyst for Ultralong-Term Alkaline Hydrogen Evolution. 2020 , 12, 36259-36267		6
1220	Promoting effect of ruthenium, platinum and palladium on alumina supported cobalt catalysts for ultimate generation of hydrogen from hydrazine. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 21573-21587	6.7	10
1219	Hydrogen sensing kinetics of laterally aligned MoO3 nanoribbon arrays with accelerated response and recovery performances at room temperature. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 23841-23850	6.7	8
1218	Performance analysis of operational strategies for monolithic receiver-reactor arrays in solar thermochemical hydrogen production plants. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 26104-	-26116	58
1217	Graphitic Carbon Nitride-Based Materials as Catalysts for the Upgrading of Lignocellulosic Biomass-Derived Molecules. 2020 , 13, 3992-4004		11
1216	Critical conditions of Al powder-water reaction in a heated stirred reactor. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 30957-30965	6.7	1
1215	Investigation of fabrication methods for a cathode using a non-precious metal catalyst in polymer electrolyte membrane fuel cell. 2020 , 37, 2334-2339		1
1214	Study of a metal hydride based thermal energy storage system using multi-phase heat exchange for the application of concentrated solar power system. <i>International Journal of Hydrogen Energy</i> , 2020 ,	6.7	Ο

Numerical Study of Solar Hydrogen Production System for Rural Areas Employing TRNSYS. 2020, 1213 555, 012017 Deposition of an ultrathin palladium (Pd) coating on SAPO-34 membranes for enhanced H2/N2 1212 6.7 7 separation. International Journal of Hydrogen Energy, 2020, 45, 33648-33656 A fast procedure for the estimation of the hydrogen storage capacity by cryoadsorption of metal-organic framework materials from their available porous properties. International Journal of 1211 6.7 1 Hydrogen Energy, 2020, 1210 Selective dehydrogenation of isopropanol on carbonized metalorganic frameworks. 2020, 24, 100605 The consequence of silicon additive in isothermal decomposition of hydrides LiH, NaH, CaH2 and 6.7 1209 2 TiH2. International Journal of Hydrogen Energy, 2020, 45, 30792-30804 Large-vscale hydrogen production and storage technologies: Current status and future directions. 1208 6.7 54 International Journal of Hydrogen Energy, 2020, Phase transformation and electrical properties of bismuth oxide doped scandium cerium and gadolinium stabilized zirconia (0.5Gd0.5Ce10ScSZ) for solid oxide electrolysis cell. International 6.7 O Journal of Hydrogen Energy, 2020, 45, 29953-29965 Hydrogen adsorption on Li decorated graphyne-like carbon nanosheet: A density functional theory 1206 6.7 9 study. International Journal of Hydrogen Energy, 2020, 45, 24938-24946 Closing the hydrogen cycle with the couple sodium borohydride-methanol, via the formation of 6 1205 sodium tetramethoxyborate and sodium metaborate. 2020, 44, 11405-11416 Preparation and electrochemical hydrogen storage properties of Co9S8 alloy coated with 8 cobalt/graphene composite. **2020**, 44, 11742-11755 Research on hydrogen permeability of polyamide 6 as the liner material for type IV hydrogen storage 6.7 1203 12 tank. International Journal of Hydrogen Energy, 2020, 45, 24980-24990 Atomic-scale investigations of enhanced hydrogen separation performance from doping boron and 1202 6.7 10 nitrogen in graphdiyne membrane. International Journal of Hydrogen Energy, 2020, 45, 28893-28902 Direct ammonia production via a combination of carbonization and thermochemical cycle from 1201 empty fruit bunch. 2020, 20, 100673 Novel integrated strategies toward efficient and stable unassisted photoelectrochemical water splitting. 2020, 25, e00209 Benefits of a Diversified Energy Mix for Islanded Systems. 2020, 8, 4 Experimental and theoretical evaluation of hydrogen cloud explosion with built-in obstacles. 6.7 1198 15 International Journal of Hydrogen Energy, 2020, 45, 28007-28018 Drawing the distinguished graphite carbon nitride (g-C3N4) on SnO2 nanoflake film for solar water 1197 6.7 7 oxidation. International Journal of Hydrogen Energy, 2020, 45, 22567-22575 Numerical simulations of the energy performance of a PEM water electrolysis based high-pressure 1196 12 hydrogen refueling station. International Journal of Hydrogen Energy, 2020, 45, 27457-27470

(2020-2020)

1195	Synthesis of Pd nanoparticle-decorated SnO2 nanowires and determination of the optimum quantity of Pd nanoparticles for highly sensitive and selective hydrogen gas sensor. 2020 , 322, 128651		31	
1194	Improving hydrogen permeability and sustainability of Nb30Ti35Co35 eutectic alloy membrane by substituting Co using Fe. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 30720-30730	6.7	4	
1193	Hydrogen storage in TiZrNbFeNi high entropy alloys, designed by thermodynamic calculations. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 33759-33770	6.7	16	
1192	One-pot synthesis of MoS2(1日)Se2x on N-doped reduced graphene oxide: tailoring chemical and structural properties for photoenhanced hydrogen evolution reaction. 2020 , 2, 4830-4840		1	
1191	Comparative investigation on feasible hydrolysis H2 production behavior of commercial Mg-M (M = Ni, Ce, and La) binary alloys modified by high-energy ball milling Beasible modification strategy for Mg-based hydrogen producing alloys. 2020 , 44, 11956-11972		6	
1190	A Polymer Sheet-Based Hydrogen Carrier. 2020 , 2020, 5876-5879		3	
1189	Activation Energy of Hydrogen Adsorption on Pt(111) in Alkaline Media: An Impedance Spectroscopy Study at Variable Temperatures. 2020 , 12, 42911-42917		4	
1188	Hydrogen Direct Adsorptive Separation: Development Status and Trends. 2020 , 34, 15126-15140		2	
1187	Reversible Hydrogenation D ehydrogenation of Acetylpyridine-Pd-MIL-101(Cr) for Chemical Hydrogen Storage. 2020 , 59, 17671-17679		1	
1186	Fabrication of Cellulose Acetate Film through Blending Technique with Palladium Acetate for Hydrogen Gas Separation. 2020 , 34, 11699-11707		8	
1185	Improved electrochemical properties of Co0.9Cu0.1Si hydrogen storage alloy by covering with Co/rGO composite. 2020 , 108, 106382		0	
1184	Enhancing the Hydrogen Storage Properties of AxBy Intermetallic Compounds by Partial Substitution: A Short Review. 2020 , 1, 38-63		12	
1183	Facile NiCo2S4/C nanocomposite: an efficient material for water oxidation. 2020 , 2, 403-410		5	
1182	Discriminating between the effect of pulse width and duty cycle on the hydrogen generation performance of 3-D electrodes during pulsed water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2020 , 46, 28925-28925	6.7		
1181	Sulfuric acid decomposition in the iodineBulfur cycle using heat from a very high temperature gas-cooled reactor. <i>International Journal of Hydrogen Energy</i> , 2020 , 46, 28969-28969	6.7	6	
1180	Surface-Controlled Conversion of Ammonia Borane from Boron Nitride. 2020 , 13, 5569		1	
1179	DFT and Empirical Considerations on Electrocatalytic Water/Carbon Dioxide Reduction by CoTMPyP in Neutral Aqueous Solutions*. 2020 , 21, 2644-2650		1	
1178	A state of the art review on biomass processing and conversion technologies to produce hydrogen and its recovery via membrane separation. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 15166-15	f9 7 5	57	

1177	A new semi-empirical wind turbine capacity factor for maximizing annual electricity and hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 15888-15903	6.7	17
1176	Isentropic analysis and numerical investigation on high-pressure hydrogen jets with real gas effects. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 20256-20265	6.7	4
1175	Emerging technologies by hydrogen: A review. International Journal of Hydrogen Energy, 2020, 45, 1875	36:1/87	7183
1174	Design of catalysts comprising a nickel core and ceria shell for hydrogen production from plastic waste gasification: an integrated test for anti-coking and catalytic performance. 2020 , 10, 3975-3984		6
1173	Cesium hydrazinidoborane, the last of the alkali hydrazinidoboranes, studied as potential hydrogen storage material. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 16634-16643	6.7	3
1172	Thermally stable Pt/Ti mesh catalyst for catalytic hydrogen combustion. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 16851-16864	6.7	16
1171	Preheated self-aligned graphene oxide for enhanced room temperature hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 19561-19566	6.7	3
1170	A remarkable increase in the adsorbed H2 amount: Influence of pore size distribution on the H2 adsorption capacity of Fe-BTC. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 12394-12407	6.7	3
1169	Data-driven configuration optimization of an off-grid wind/PV/hydrogen system based on modified NSGA-II and CRITIC-TOPSIS. 2020 , 215, 112892		77
1168	Spatially decoupled hydrogen evolution in alkaline conditions with a redox targeting-based flow battery. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 18888-18894	6.7	6
1167	Trends and future challenges in hydrogen production and storage research. 2020 , 27, 31092-31104		27
1166	Improved hydrogen storage kinetics of Mg-based alloys by substituting La with Sm. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 21588-21599	6.7	10
1165	A continuous hydrogen absorption/desorption model for metal hydride reactor coupled with PCM as heat management and its application in the fuel cell power system. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 28087-28099	6.7	9
1164	The influence of refractory metals on the hydrogen storage characteristics of FeTi-based alloys prepared by suspended droplet alloying. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 21635-216	4 § .7	4
1163	Structural characterization and electrochemical properties of (La,Sr)(Al,Mg)O4lperovskites. 2020 , 44, 11608-11614		0
1162	Ammonia as Effective Hydrogen Storage: A Review on Production, Storage and Utilization. 2020 , 13, 3062		73
1161	Effect of applied strain on the interaction between hydrogen atoms and 12<111> screw dislocations in \Box ron. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 20069-20079	6.7	0
1160	In situ measurement technologies on solid-state hydrogen storage materials: a review. 2020 , 17, 10046	3	22

1159	Performance Assessment of a Hybrid System with Hydrogen Storage and Fuel Cell for Cogeneration in Buildings. 2020 , 12, 4832		14	
1158	Hydrogen absorption performance of a novel cylindrical MH reactor with combined loop-type finned tube and cooling jacket heat exchanger. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 281	06 : 781	18	
1157	Comparison of different system layouts to generate a substitute of natural gas from biomass and electrolytic hydrogen. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 26166-26178	6.7	6	
1156	The hydrate-based gas separation of hydrogen and ethylene from fluid catalytic cracking dry gas in presence of Poly (sodium 4-styrenesulfonate). 2020 , 275, 117895		7	
1155	Boosting electrochemical water oxidation: the merits of heterostructured electrocatalysts. 2020 , 8, 63	93-640	15 29	
1154	Hydrogen production from sodium borohydride by ZnCl2 treated defatted spent coffee ground catalyst. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 9733-9743	6.7	11	
1153	La(OH)3-decorated NiFe nanoparticles as efficient catalyst for hydrogen evolution from hydrous hydrazine and hydrazine borane. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 11641-11650	6.7	26	
1152	Photocatalytic Reforming for Hydrogen Evolution: A Review. 2020 , 10, 335		19	
1151	Enhancement of pH values stability and photo-fermentation biohydrogen production by phosphate buffer. 2020 , 11, 291-300		15	
1150	Electron transfer study between hydrogen molecules and graphene surface. 2020 , 833, 012026			
1149	Enhancing Hydrogen Storage Properties of MgH by Transition Metals and Carbon Materials: A Brief Review. 2020 , 8, 552		23	
1148	Advancing Proton Exchange Membrane Electrolyzers with Molecular Catalysts. 2020 , 4, 1408-1444		16	
1147	Study on the reaction pathways of steam methane reforming for H2 production. 2020 , 207, 118296		16	
1146	Sputter-etching treatment of proton-exchange membranes: Completely dry thin-film approach to low-loading catalyst-coated membranes for water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 20776-20786	6.7	4	
1145	Novel sonochemical synthesis of Zn2V2O7 nanostructures for electrochemical hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 21611-21624	6.7	30	
1144	Design and implementation of hydrogen economy using artificial neural network on field programmable gate array. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 20709-20720	6.7	10	
1143	LCA of electrochemical reduction of CO2 to ethylene. 2020 , 41, 101229		15	
1142	Ag(0) nanocatalyst stabilized with networks of p(SPA-co-AMPS) for the hydrogen generation process from ethylenediamine bisborane hydrolysis. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 17649-17661	6.7	5	

1141	Improve hydrogen sorption kinetics of MgH2 by doping carbon-encapsulated iron-nickel nanoparticles. 2020 , 843, 156035	14
1140	An investment decision framework for photovoltaic power coupling hydrogen storage project based on a mixed evaluation method under intuitionistic fuzzy environment. 2020 , 30, 101601	12
1139	Effect of enzymolysis time on biohydrogen production from photo-fermentation by using various energy grasses as substrates. 2020 , 305, 123062	14
1138	CO2 abatement and CH4 recovery at vehicle exhausts: Comparison and characterization of Ru powder and pellet catalysts. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 8640-8648	5
1137	Transport of hydrogen and deuterium in 316LN stainless steel over a wide temperature range for nuclear hydrogen and nuclear fusion applications. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 8827-8832	8
1136	Solid-State NaBH4 Composites as Hydrogen Generation Material: Effect of Thermal Treatment of a Catalyst Precursor on the Hydrogen Generation Rate. 2020 , 10, 201	8
1135	MXenes: Applications in electrocatalytic, photocatalytic hydrogen evolution reaction and CO2 reduction. 2020 , 486, 110850	57
1134	Enhancing selectivity and reducing cost for dehydrogenation of dodecahydro-N-ethylcarbazole by supporting platinum on titanium dioxide. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 6838-6847 6.7	18
1133	Global modelling studies of hydrogen and its isotopomers using STOCHEM-CRI: Likely radiative forcing consequences of a future hydrogen economy. <i>International Journal of Hydrogen Energy</i> , 6.7 2020 , 45, 9211-9221	11
1132	Challenges towards hydrogen economy in China. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 343@6-34	3 48
1131	Phase transformation by a step-growth mechanism in annealed LaMgNi-based layered-stacking alloys. 2020 , 834, 154282	2
1130	Economic optimization and potential analysis of fuel cell vehicle-to-grid (FCV2G) system with large-scale buildings. 2020 , 205, 112463	18
1129	Experimental and numerical analysis of a liquid aluminium injector for an Al-H2O based hydrogen production system. 2020 , 7-8, 100018	6
1128	Effect of carriers on deposition morphologies and catalytic performances of NiCo2O4. 2020 , 46, 11499-11507	2
1127	Degradation of Pd/Nb30Ti35Co35/Pd hydrogen permeable membrane: A numerical description. 2020 , 601, 117922	8
1126	Waste PET plastic derived ZnO@NMC nanocomposite via MOF-5 construction for hydrogen and oxygen evolution reactions. 2020 , 32, 2397-2405	25
1125	Influence of hydrocarbons on hydrogen chloride removal from refinery off-gas by zeolite NaY derived from rice husks. 2020 , 728, 138782	8
1124	Wood cellulose as a hydrogen storage material. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 149087, 49	134

1123	Investigation of structural stability of type IV compressed hydrogen storage tank during refueling of fuel cell vehicle. 2020 , 2, e150		12
1122	Hydrogen production and storage analysis of a system by using TRNSYS. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 34608-34619	6.7	8
1121	Constructing Core-Shell Co@N-Rich Carbon Additives Toward Enhanced Hydrogen Storage Performance of Magnesium Hydride. 2020 , 8, 223		3
1120	Enhanced Low-Temperature Hydrogen Storage in Nanoporous Ni-Based Alloy Supported LiBH. 2020 , 8, 283		5
1119	Oxygen Evolution Reaction on Tin Oxides Supported Iridium Catalysts: Do We Need Dopants?. 2020 , 7, 2330-2339		23
1118	Activation of graphitic carbon nitride by solvent-mediated supramolecular assembly for enhanced hydrogen evolution. 2020 , 525, 146444		13
1117	Study of an autothermal-equilibrium metal hydride reactor by reaction heat recovery as hydrogen source for the application of fuel cell power system. 2020 , 213, 112864		11
1116	Positive and Negative Effects of Dopants toward Electrocatalytic Activity of MoS and WS: Experiments and Theory. 2020 , 12, 20383-20392		22
1115	Life cycle assessment and techno-economic analysis of biomass-to-hydrogen production with methane tri-reforming. 2020 , 199, 117488		24
1114	Preparation and electrochemical hydrogen storage properties of Ti49Zr26Ni25 alloy covered with porous polyaniline. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 11675-11685	6.7	13
1113	Is the H2 economy realizable in the foreseeable future? Part I: H2 production methods. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 13777-13788	6.7	88
1112	Hydrogen storage capacities of alkali and alkaline-earth metal atoms on SiC monolayer: A first-principles study. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 20266-20279	6.7	15
1111	Alkali and transition metal atom-functionalized germanene for hydrogen storage: A DFT investigation. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 20245-20256	6.7	18
1110	Use of hydrogen as a seasonal energy storage system to manage renewable power deployment in Spain by 2030. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 17447-17457	6.7	20
1109	Enhanced reversible hydrogen storage in palladium hollow spheres. 2021 , 39, 617-623		0
1108	A size-dependent financial evaluation of green hydrogen-oxygen co-production. 2021 , 163, 2165-2177		10
1107	Ultrasmall Mo2C in N-doped carbon material from bimetallic ZnMo-MOF for efficient hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 2182-2190	6.7	6
1106	CFD simulation of CO2 removal from hydrogen rich stream in a microchannel. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 19749-19757	6.7	7

1105	A novel integrated structure for hydrogen purification using the cryogenic method. 2021 , 278, 123872		16
1104	SWARA/WASPAS methods for a marine current energy plant location selection problem. 2021 , 163, 128	7-129	819
1103	Smart energy management and recovery towards Sustainable Energy System Optimisation with bio-based renewable energy. 2021 , 135, 110385		2
1102	Li-decorated porous hydrogen substituted graphyne: A new member of promising hydrogen storage medium. 2021 , 535, 147683		10
1101	Optimal Control Strategies for Seasonal Thermal Energy Storage Systems With Market Interaction. 2021 , 29, 1891-1906		5
1100	A novel hybrid energy system for hydrogen production and storage in a depleted oil reservoir. International Journal of Hydrogen Energy, 2021, 46, 18020-18031	6.7	4
1099	Reforming of methanol to produce hydrogen over the Au/ZnO catalyst. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 80-88	6.7	6
1098	Kinetics of MgH2 formation by ball milling. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 967-973	6.7	4
1097	Self-assembled CuCo2S4 nanosheets with rich surface Co3+ as efficient electrocatalysts for oxygen evolution reaction. 2021 , 536, 147826		17
1096	Hydrogen economy, energy, and liquid organic carriers for its mobility. 2021 , 46, 5420-5427		11
1095	Enhanced hydrogen production in microbial electrolysis through strategies of carbon recovery from alkaline/thermal treated sludge. 2021 , 15, 1		7
1094	Open and close-ended CoMoS3 nanotubes for hydrogen evolution in acidic and basic conditions. 2021 , 57, 34-40		4
1093	Reducing atmospheric pollutant and greenhouse gas emissions of heavy duty trucks by substituting diesel with hydrogen in Beijing-Tianjin-Hebei-Shandong region, China. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 18137-18152	6.7	9
1092	Facile reversible hydrogenation of a poly(6-vinyl-2,3-dimethyl-1,2,3,4-tetrahydroquinoxaline) gel-like solid. 2021 , 32, 1162-1167		3
1091	Crystalline polymer functionalized non-oxidized graphene flakes for high gas barrier composites. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 5472-5484	6.7	4
1090	In operando activation of alkaline electrolyzer by ruthenium spontaneous deposition. 2021 , 25, 1019-10)27	1
1089	A DFT study on enhanced adsorption of H2 on Be-decorated porous graphene nanosheet and the effects of applied electrical fields. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 5891-5903	6.7	4
1088	Hydrogen adsorption on calcium, potassium, and magnesium-decorations aluminene using density functional theory. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 16676-16684	6.7	2

1087	Spirit-based distillerstgrains and red mud synergistically catalyse the steam gasification of anthracite to produce hydrogen-rich synthesis gas. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 314-323	6.7	1	
1086	First principles investigation on selective hydrogen sensing properties of phase TeO2. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 4666-4672	6.7	4	
1085	High capacity reversible hydrogen storage in titanium doped 2D carbon allotrope Braphene: Density Functional Theory investigations. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 4154-4167	6.7	24	
1084	Nonwoven NiBiO/carbon fibers for electrochemical water oxidation. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 3798-3810	6.7	5	
1083	WC modified with ionic liquids for the hydrogen evolution reaction in alkaline solution. 2021 , 880, 1148	78	3	
1082	Introducing a novel liquid air cryogenic energy storage system using phase change material, solar parabolic trough collectors, and Kalina power cycle (process integration, pinch, and exergy analyses). 2021 , 228, 113653		21	
1081	Mechanism of transition metal cluster catalysts for hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 3484-3492	6.7	6	
1080	The role of the substrate on the mechanical and thermal stability of Pd thin films during hydrogen (de)sorption. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 4137-4153	6.7	3	
1079	Modification of NaAlH4 properties using catalysts for solid-state hydrogen storage: A review. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 766-782	6.7	22	
1078	Efficient hydrogen production from ammonia borane hydrolysis catalyzed by TiO2-supported RuCo catalysts. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 3964-3973	6.7	17	
1077	Current research progress and perspectives on liquid hydrogen rich molecules in sustainable hydrogen storage. 2021 , 35, 695-722		23	
1076	EMgH2 induced by high pressure for low temperature dehydrogenation. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 5441-5448	6.7	4	
1075	Topological materials and topologically engineered materials: properties, synthesis, and applications for energy conversion and storage. 2021 , 9, 1297-1313		4	
1074	Biofuel production. 2021 , 145-171			
1073	Sonochemical synthesis, characterization and investigation of the electrochemical hydrogen storage properties of TlPbI3/Tl4PbI6 nanocomposite. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 6648-6658	6.7	9	
1072	A market framework for grid balancing support through imbalances trading. 2021 , 137, 110467		3	
1071	Nanosized ammonia borane for solid-state hydrogen storage: Outcomes, limitations, challenges and opportunities. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 7351-7370	6.7	5	
1070	Controlled synthesis of hierarchical hollow CoLDH nanocages electrocatalysts for oxygen evolution reaction. 2021 , 541, 111011		2	

1069	Electrospun carbon nanofibers with in-situ encapsulated Ni nanoparticles as catalyst for enhanced hydrogen storage of MgH2. 2021 , 851, 156874		32
1068	Effect of the support properties in dehydrogenation of biphenyl-based eutectic mixture as liquid organic hydrogen carrier (LOHC) over Pt/Al2O3 catalysts. 2021 , 284, 119285		15
1067	Intensification mechanisms of the lean hydrogen-air combustion via addition of suspended micro-droplets of water. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 1259-1272	6.7	6
1066	Structure and hydrogenation features of mechanically activated LaNi5-type alloys. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 13638-13646	6.7	4
1065	Clean hydrogen production by the hydrolysis of magnesium-based material: Effect of the hydrolysis solution. 2021 , 282, 124498		7
1064	Optimization of catalyst-coated membranes for enhancing performance in proton exchange membrane electrolyzer cells. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 1155-1162	6.7	4
1063	Sequential production of hydrogen and methane by anaerobic digestion of organic wastes: a review. 2021 , 19, 1043-1063		13
1062	Highly porous metal organic framework derived NiO hollow spheres and flowers for oxygen evolution reaction and supercapacitors. 2021 , 47, 3312-3321		17
1061	Fuel-cell sharing for a distributed hybrid power system. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 1174-1187	6.7	6
1060	Thermal management and power saving operations for improved energy efficiency within a renewable hydrogen energy system utilizing metal hydride hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 262-271	6.7	16
1059	Magnesium vacancies and hydrogen doping in MgH2 for improving gravimetric capacity and desorption temperature. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 2322-2329	6.7	2
1058	Sustainable Development for Energy, Power, and Propulsion. 2021,		
1057	Experimental investigation on absorption and desorption characteristics of La0.9Ce0.1Ni5 for hydrogen storage application. 2021 , 45, 2870-2881		О
1056	Dependence of Mg, Be and Al substitution on the hydrogen storage characteristics of ZrNiH3. 2021 , 45, 2292-2302		3
1055	Surface oxidation for enhancing the hydrogen evolution reaction of metal nitrides: a theoretical study on vanadium nitride.		1
1054	Solid-state hydrogen storage as a future renewable energy technology. 2021 , 263-287		
1053	Neutron scattering studies of materials for hydrogen storage. 2021,		3
1052	Transition-Metal- and Nitrogen-Doped Carbide-Derived Carbon/Carbon Nanotube Composites as Cathode Catalysts for Anion-Exchange Membrane Fuel Cells 2021 , 11, 1920-1931		33

1051 Recent developments of nanocatalyzed liquid-phase hydrogen generation. 2021 , 50, 3437-3484		62
Control of hydrogen release during borohydride electrooxidation with porous carbon materials 2021 , 11, 15639-15655		3
Metal organic frameworks for hydrogen purification. <i>International Journal of Hydrogen Energy</i> , 2 0, ,	021 6.7	1
Palladium and platinum thin films for low-concentration resistive hydrogen sensor: a comparative study. 2021 , 32, 5567-5578	e	3
1047 Overview of Multi-criteria Decision Analysis and Its Applications on Energy Systems. 2021 , 1-26		
1046 The Role of Hydrogen in the Black Sea for the Future Energy Supply Security of Turkey. 2021 , 1-1	5	27
1045 Renewable energy and energy sustainability. 2021 , 17-31		1
Study of catalytic hydrogenation and dehydrogenation of 2,3-dimethylindole for hydrogen stora application 2021 , 11, 15729-15737	ge	2
Fabrication and Analysis of Apparatus for Measuring Stored Renewable Hydrogen Energy in Met Hydrides. 2021 , 241-250	al	1
1042 Introduction. 2021 , 1-14		
1042 Introduction. 2021, 1-14 1041 Introduction to inorganic fuel-based direct liquid fuel cells. 2021, 191-201		0
	th	0
Introduction to inorganic fuel-based direct liquid fuel cells. 2021 , 191-201 CO-free hydrogen production via ammonia decomposition over mesoporous Co/AlO catalysts wi	th	
Introduction to inorganic fuel-based direct liquid fuel cells. 2021 , 191-201 CO-free hydrogen production via ammonia decomposition over mesoporous Co/AlO catalysts wi highly dispersed Co species synthesized by a facile method. 2021 , 50, 1443-1452 Process Simulation and Environmental Aspects of Dimethyl Ether Production from		1
Introduction to inorganic fuel-based direct liquid fuel cells. 2021, 191-201 CO-free hydrogen production via ammonia decomposition over mesoporous Co/AlO catalysts wi highly dispersed Co species synthesized by a facile method. 2021, 50, 1443-1452 Process Simulation and Environmental Aspects of Dimethyl Ether Production from Digestate-Derived Syngas. 2021, 18, Facile one-pot synthesis of PdM (M = Ag, Ni, Cu, Y) nanowires for use in mixed matrix membranes.	s	7
Introduction to inorganic fuel-based direct liquid fuel cells. 2021, 191-201 CO-free hydrogen production via ammonia decomposition over mesoporous Co/AlO catalysts wi highly dispersed Co species synthesized by a facile method. 2021, 50, 1443-1452 Process Simulation and Environmental Aspects of Dimethyl Ether Production from Digestate-Derived Syngas. 2021, 18, Facile one-pot synthesis of PdM (M = Ag, Ni, Cu, Y) nanowires for use in mixed matrix membranes for efficient hydrogen separation. Current Research Trends and Perspectives on Solid-State Nanomaterials in Hydrogen Storage. 20	s	7
Introduction to inorganic fuel-based direct liquid fuel cells. 2021, 191-201 CO-free hydrogen production via ammonia decomposition over mesoporous Co/AlO catalysts wi highly dispersed Co species synthesized by a facile method. 2021, 50, 1443-1452 Process Simulation and Environmental Aspects of Dimethyl Ether Production from Digestate-Derived Syngas. 2021, 18, Facile one-pot synthesis of PdM (M = Ag, Ni, Cu, Y) nanowires for use in mixed matrix membranes for efficient hydrogen separation. Current Research Trends and Perspectives on Solid-State Nanomaterials in Hydrogen Storage. 20, 2021, 3750689 Potential for biohydrogen production from organic wastes with focus on sequential dark- and	s	7 6 9

1033	Effect of element substitution and surface treatment on low temperature properties of AB3.42-type LaMNi based hydrogen storage alloy. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 3414-3424	6.7	9
1032	Glycerol Hydrogenolysis with In Situ Hydrogen Produced via Methanol Steam Reforming: The Promoting Effect of Pd on a Cu/ZnO/Al2O3 Catalyst. 2021 , 11, 110		5
1031	Simultaneous improvement of kinetics and thermodynamics based on SrF2 and SrF2@Gr additives on hydrogen sorption in MgH2. 2021 , 2, 4277-4290		1
1030	Application of Artificial Neural Networks for Forecasting Brazilian CO 2.		
1029	High-entropy energy materials: challenges and new opportunities. 2021 , 14, 2883-2905		73
1028	Engineering Energy Markets: The Past, the Present, and the Future. 2021 , 113-134		1
1027	Black phosphorus-based photocatalysts for energy and environmental applications. 2021 , 421-449		
1026	High-Pressure Torsion of Non-Equilibrium Hydrogen Storage Materials: A Review. 2021 , 14, 819		7
1025	Chevrel Phase Nanoparticles as Electrocatalysts for Hydrogen Evolution. 2021 , 4, 2030-2036		4
1024	Designing High-Valence Metal Sites for Electrochemical Water Splitting. 2021 , 31, 2009779		67
1023	In Silico Screening of Zeolites for High-Pressure Hydrogen Drying. 2021 , 13, 8383-8394		1
1022	Hybrid IT2 fuzzy modelling with alpha cuts for hydrogen energy investments. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 8835-8851	6.7	63
1021	Highly dispersed cobalt metaphosphate nanoparticles embedded in tri-doped carbon as a pH-Wide electrocatalyst for hydrogen evolution. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 6513-6521	6.7	4
1020	Effects of hydrocarbon impurities, vibrational relaxation, and boundary-layer-induced pressure rise on the ignition of H2D2-Ar mixtures behind reflected shock waves. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 9580-9594	6.7	O
1019	Dehydrogenation of ethylene diamine monoborane adducts and their cyclic products (monomers, dimers, and trimers): Potential liquid organic hydrogen carriers. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 7336-7350	6.7	2
1018	Effect of adding different percentages of HfCl4 on the hydrogen storage properties of MgH2. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 8621-8628	6.7	17
1017	Heterogeneous Formic Acid Production by Hydrogenation of CO2 Catalyzed by Ir-bpy Embedded in Polyphenylene Porous Organic Polymers. 2021 , 13, 1781-1786		3
1016	Evaluating influences of impurities on hydrogen production in the reaction of Si with water using Si sludge. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 7722-7732	6.7	4

1015	Electrosynthesis of Cu/hydroxyapatite as the catalyst for hydrogen production via NaBH4 hydrolysis. 2021 , 1070, 012023		1
1014	Investigation on the Al/low-melting-point metals/salt composites for hydrogen generation. 2021 , 45, 9627-9637		1
1013	On the Development of Thermochemical Hydrogen Storage: An Experimental Study of the Kinetics of the Redox Reactions under Different Operating Conditions. 2021 , 11, 1623		3
1012	The possibilities of cooperation between a hydrogen generator and a wind farm. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 7047-7059	6.7	7
1011	Review on Hydrogen Storage Performance of MgH2: Development and Trends. 2021 , 6, 1589-1606		11
1010	Pd/C-Catalyzed H2 Evolution from Tetrahydroxydiboron Hydrolysis. 2021 , 151, 3004-3010		8
1009	Hydration reactivity enhancement of calcium oxideBased media for thermochemical energy storage. 2021 , 3, e232		1
1008	Advantages of hydrogen addition in a passive pre-chamber ignited SI engine for passenger car applications. 2021 , 45, 13219-13237		6
1007	Metal-doped carbon nanocones as highly efficient catalysts for hydrogen storage: Nuclear quantum effect on hydrogen spillover mechanism. 2021 , 504, 111486		3
1006	NiCo Nanorod Array Supported on Copper Foam as a High-Performance Catalyst for Hydrogen Production From Ammonia Borane. 2021 , 8,		
1005	Tantalum-Palladium: Hysteresis-Free Optical Hydrogen Sensor Over 7 Orders of Magnitude in Pressure with Sub-Second Response. 2021 , 31, 2010483		5
1004	Acoustic emission characteristics of used 70 MPa type IV hydrogen storage tanks during hydrostatic burst tests. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 12605-12614	6.7	1
1003	Powder Composition Structurization of the Ti-25Al-25Nb (at.%) System upon Mechanical Activation and Subsequent Spark Plasma Sintering. 2021 , 23, 37		1
1002	Valorization of AZ91 by the hydrolysis reaction for hydrogen production (Electrochemical approach). 2021 , 9, 1942-1942		О
1001	Combinations of VC and TiC MXenes for Boosting the Hydrogen Storage Performances of MgH. 2021 , 13, 13235-13247		26
1000	Optimized Modeling and Design of a PCM-Enhanced H2 Storage. 2021 , 14, 1554		2
999	Manganese oxides treated with organic compounds as catalysts for water oxidation reaction. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 11677-11687	6.7	2
998	A First-Principles Study of Hydrogen Desorption from High Entropy Alloy TiZrVMoNb Hydride Surface. 2021 , 11, 553		3

997	Significantly enhanced electrocatalytic activity of copper for hydrogen evolution reaction through femtosecond laser blackening. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 10783-10788	6.7	6
996	Superalkali NLi4 anchored on BN sheets for reversible hydrogen storage. 2021 , 118, 093902		3
995	Comparative techno-economic assessment of a large-scale hydrogen transport via liquid transport media. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 11956-11968	6.7	19
994	Polyampholytic Graft Copolymers as Matrix for TiO /Eosin Y/[Mo S] Hybrid Materials and Light-Driven Catalysis. 2021 , 27, 16924-16929		1
993	Synthesis of vinyl polymers substituted with 2-propanol and acetone and investigation of their reversible hydrogen storage capabilities.		2
992	Thermodynamics, kinetics and reaction mechanism of hydrogen production from a novel Al alloy/NaCl/g-C3N4 composite by low temperature hydrolysis. 2021 , 218, 119489		10
991	Amino Acids as Kinetic Promoters for Gas Hydrate Applications: A Mini Review. 2021 , 35, 7553-7571		25
990	Cold Gas-Dynamic Spray for Catalyzation of Plastically Deformed Mg-Strips with Ni Powder. 2021 , 11,		1
989	Ab initio study of lithium decoration of popgraphene and hydrogen storage capacity of the hybrid nanostructure. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 15724-15737	6.7	1
988	Structural and Electronic Properties of (HfH2)n (n = 5B0) Clusters: Theoretical Investigation. 2021 , 128, 114634		O
987	Role of vacancy defects on the dehydrogenation properties of the ternary hydride ZrNiH3: Ab-initio insights. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 13088-13096	6.7	3
986	Effect of Water Content on Thermodynamic Properties of Compressed Hydrogen. 2021 , 66, 2071-2087		4
985	Emission characteristics and heat release rate surrogates for ammonia premixed laminar flames. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 13461-13470	6.7	4
984	The Deltah Lab, a New Multidisciplinary European Facility to Support the H2 Distribution & Storage Economy. 2021 , 11, 3272		O
983	Global modeling of hydrogen using GFDL-AM4.1: Sensitivity of soil removal and radiative forcing. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 13446-13460	6.7	3
982	Potassium-doped PC71BM for hydrogen storage: Photoelectron spectroscopy and first-principles studies. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 13061-13069	6.7	2
981	Design and Structural Parameters Analysis of the Turbine Rotor in Fuel Cell Vehicle.		
980	Optimal design of a metal hydride hydrogen storage bed using a helical coil heat exchanger along with a central return tube during the absorption process. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 14478-14493	6.7	12

979	Paired Ru-O-Mo ensemble for efficient and stable alkaline hydrogen evolution reaction. 2021 , 82, 10570	67	31
978	Persistent Effect Test and Internal Microscopic Monitoring for PEM Water Electrolyzer. 2021 , 12,		Ο
977	Hydrogen evolution from water molecule reactions with Ge7 and Ge6Al clusters. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 12693-12700	6.7	3
976	Investigation of solid state hydrogen storage performances of novel NaBH4/Ah-BN nanocomposite as hydrogen storage medium for fuel cell applications. 2021 , 860, 158444		9
975	Construction of phase diagrams to estimate phase transitions at high pressures: A critical point at the solid liquid transition for benzene. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 15168-15180	6.7	10
974	Energy Sustainability with a Focus on Environmental Perspectives. 2021 , 5, 1-14		12
973	Chemical storage of hydrogen in synthetic liquid fuels: building block for CO2-neutral mobility. 2021 , 5, 180-186		О
972	Hydrogen Storage: Materials, Kinetics and Thermodynamics.		
971	Large-scale compressed hydrogen storage as part of renewable electricity storage systems. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 15671-15690	6.7	33
970	Investigation of hydrogen production by sulfur-iodine thermochemical water splitting cycle using renewable energy source. 2021 , 45, 14845-14869		5
969	Hydrogen Separation and Purification from Various Gas Mixtures by Means of Electrochemical Membrane Technology in the Temperature Range 100-160 °C. 2021 , 11,		5
968	Model-based control design for H2 purity regulation in high-pressure alkaline electrolyzers. 2021 , 358, 4373-4392		1
967	Hydrogen Transportation Behaviour of V-Ni Solid Solution: A First-Principles Investigation. 2021 , 14,		1
966	Nanoconfinement effects on hydrogen storage properties of MgH2 and LiBH4. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 23723-23723	6.7	9
965	Towards the Hydrogen Economy Review of the Parameters That Influence the Efficiency of Alkaline Water Electrolyzers. 2021 , 14, 3193		11
964	A review on recent advances in hydrogen energy, fuel cell, biofuel and fuel refining via ultrasound process intensification. 2021 , 73, 105536		19
963	Food Waste: A Promising Source of Sustainable Biohydrogen Fuel. 2021 , 39, 1274-1288		10
962	Low-carbon hydrogen via integration of steam methane reforming with molten carbonate fuel cells at low fuel utilization. 2021 , 2, 100010		10

961	Enhanced hydrogen storage properties of Mg by the synergistic effect of grain refinement and NiTiO3 nanoparticles. 2021 ,		4
960	Measurement and analysis of effective thermal conductivity of LaNi5 and its hydride under different gas atmospheres. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 19467-19477	6.7	2
959	Hydrolysis of Mg-based alloys and their hydrides for efficient hydrogen generation. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 18988-19000	6.7	9
958	High-purity hydrogen production via a water-gas-shift reaction in a palladium-copper catalytic membrane reactor integrated with pressure swing adsorption. 2021 , 411, 128473		14
957	Tuning hydrogen storage thermodynamic properties of ZrFe2 by partial substitution with rare earth element Y. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 18445-18452	6.7	4
956	In-situ transformational mycelium-like metal phosphides-encapsulated carbon nanotubes coating on the stainless steel mesh as robust self-supporting electrocatalyst for water splitting. 2021 , 549, 149;	227	2
955	Improved energy performance of a PEM fuel cell by introducing discontinuous S-shaped and crescent ribs into flowing channels. 2021 , 222, 119920		11
954	Hydrogenated graphene: Important material properties regarding its application for hydrogen storage. 2021 , 494, 229734		8
953	Cost-effective sizing of a hybrid Regenerative Hydrogen Fuel Cell energy storage system for remote & off-grid telecom towers. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 18153-18166	6.7	8
952	Enhancing hydrogen storage properties of MgH2 by core-shell CoNi@C. 2021 , 862, 158004		13
951	Effects of deuterium content on the thermal stability and deuterium site occupancy of TiZrHfMoNb deuterides. 2021 , 297, 121999		2
950	Improved reversible dehydrogenation properties of Mg(BH4)2 catalyzed by dual-cation transition metal fluorides K2TiF6 and K2NbF7. 2021 , 412, 128738		5
949	One-Step synthesis of PtFe/CeO2 catalyst for the Co-Preferential oxidation reaction at low temperatures. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 17751-17762	6.7	4
948	Air gasification of polyethylene terephthalate using a two-stage gasifier with active carbon for the production of H2 and CO. 2021 , 223, 120122		5
947	Substituted heterocycles as new candidates for liquid organic hydrogen carriers: In silico design from DFT calculations. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 17853-17870	6.7	O
946	Emerging Technology for a Green, Sustainable Energy-Promising Materials for Hydrogen Storage, from Nanotubes to Graphene-A Review. 2021 , 14,		5
945	A novel distributed energy system using high-temperature proton exchange membrane fuel cell integrated with hybrid-energy heat pump. 2021 , 235, 113990		6
944	A review on the development of the electrochemical hydrogen compressors. 2021 , 494, 229743		7

943	Hydrogen solubility, interfacial tension, and density of the liquid organic hydrogen carrier system diphenylmethane/dicyclohexylmethane. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 19446-1946 ⁶⁻⁷	10
942	Photofermentative hydrogen production by immobilized photosynthetic bacteria: Current perspectives and challenges. 2021 , 141, 110796	15
941	Heterogeneous Catalysis on Liquid Organic Hydrogen Carriers. 2021 , 64, 481-508	4
940	Effects of the Addition of Intermetallic Compounds Based on Zr in the First Hydrogenation Process of the TiCr1.1V0.9 Alloy. 2021 , 74, 1873-1881	
939	Evaluating the Activity and Stability of Perovskite LaMO3-Based Pt Catalysts in the Aqueous Phase Reforming of Glycerol. 1	2
938	Advanced hydrogen storage of the MgNaAl system: A review. 2021 , 9, 1111-1111	11
937	Bifunctional and Self-Supported NiFeP-Layer-Coated NiP Rods for Electrochemical Water Splitting in Alkaline Solution. 2021 , 13, 23702-23713	9
936	Experimental investigation on the dynamic responses of vented hydrogen explosion in a 40-foot container. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 19229-19243	3
935	Dual anions engineering on nickel cobalt-based catalyst for optimal hydrogen evolution electrocatalysis. 2021 , 589, 127-134	15
934	On hydrogen wettability of basaltic rock. 2021 , 200, 108387	24
933	Recent Development of Lithium Borohydride-Based Materials for Hydrogen Storage. 2021 , 2, 2100073	10
932	Offshore Geological Storage of Hydrogen: Is This Our Best Option to Achieve Net-Zero?. 2021 , 6, 2181-2186	52
931	Potential and risks of hydrogen-based e-fuels in climate change mitigation. 2021 , 11, 384-393	47
930	Two-dimensional vanadium carbide for simultaneously tailoring the hydrogen sorption thermodynamics and kinetics of magnesium hydride. 2021 ,	1
929	Facile Preparation of a Porous Nanosheet PX-Doped Fe Bi-Functional Catalyst with Excellent OER and HER Electrocatalytic Activity. 2021 , 6, 4979-4990	1
928	Proton conductivity and performance in fuel cells of grafted membranes based on polymethylpentene with radiation-grafted crosslinked sulfonated polystyrene. <i>International</i> 6.7 <i>Journal of Hydrogen Energy</i> , 2021 , 46, 16999-17006	3
927	Development of a multigenerational energy system for clean hydrogen generation. 2021 , 299, 126909	8
926	Supercapacitor and room temperature H, CO2´and CH4 gas storage characteristics of commercial nanoporous activated carbon. 2021 , 152, 109969	3

925	Design of TiVNb-(Cr, Ni or Co) multicomponent alloys with the same valence electron concentration for hydrogen storage. 2021 , 865, 158767	13
924	Nickel-decorated single vacancy phosphorene 🖪 favourable candidate for hydrogen storage. **International Journal of Hydrogen Energy, 2021 , **6.7	O
923	Hydrazine-assisted electrochemical hydrogen production by efficient and self-supported electrodeposited Ni-Cu-P@Ni-Cu nano-micro dendrite catalyst. 2021 , 382, 138335	10
922	Method to Estimate the Aqueous Concentration of Sodium Borohydride in Sodium Tetrahydroborate Power Systems. 2021 , 141, 496-502	
921	Pore Modification and Phosphorus Doping Effect on Phosphoric Acid-Activated Fe-N-C for Alkaline Oxygen Reduction Reaction. 2021 , 11,	1
920	Experimental and theoretical studies of hydrogen generation by binary metal (oxide)-graphene oxide composite materials. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 19802-19813	4
919	Encapsulation of Pt nanocatalyst with N-containing carbon layer for improving catalytic activity and stability in the hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 21454-21461	6
918	Supercritical water partial oxidation mechanism of ethanol. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 22777-22788	4
917	Bifunctional Catalyst NiFeMgAl for Hydrogen Production from Chemical Looping Ethanol Reforming. 2021 , 35, 11580-11592	4
916	Removing the Bottleneck on Wind Power Potential to Create Liquid Fuels from Locally Available Biomass. 2021 , 14, 3536	1
915	Enhanced hydrogen storage of a functional material: Hf2CF2 MXene with Li decoration. 2021 , 551, 149484	2
914	Hydrogen energy: development prospects and materials. 2021 , 90, 627-643	21
913	Numerical Study of Hydrogen Desorption in an Innovative Metal Hydride Hydrogen Storage Tank. 2021 , 35, 10908-10917	2
912	CuO-Co3O4 Composite Nanoplatelets for Hydrolyzing Ammonia Borane. 2021 , 4, 7640-7649	1
911	A first-principles study of hydrogen storage of high entropy alloy TiZrVMoNb. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 21050-21058	6
910	Comprehensive Investigation of Solar-Based Hydrogen and Electricity Production in Iran. 2021 , 2021, 1-14	18
909	Micro Gas Turbines in the Future Smart Energy System: Fleet Monitoring, Diagnostics, and System Level Requirements. 2021 , 7,	3
908	Hydrogen Environmental Benefits Depend on the Way of Production: An Overview of the Main Processes Production and Challenges by 2050. 2021 , 2, 2100093	3

907	C7N6 monolayer as high capacity and reversible hydrogen storage media: A DFT study. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 21994-22003	6.7	10
906	Activating Basal Surface of Palladium by Electronic Modulation via Atomically Dispersed Nitrogen Doping for High-Efficiency Hydrogen Evolution Reaction. 2021 , 12, 7373-7378		2
905	Novel hollow fiber membrane reactor for high purity H2 generation from thermal catalytic NH3 decomposition. 2021 , 629, 119281		5
904	Risk Assessment Method Combining Independent Protection Layers (IPL) of Layer of Protection Analysis (LOPA) and RISKCURVES Software: Case Study of Hydrogen Refueling Stations in Urban Areas. 2021 , 14, 4043		2
903	How Does Ti-Doping Affect Hydrogen Storage Properties of MgH2 at Nanosize?. 2021 , 95, 1424-1431		O
902	AlH3 as a hydrogen storage material: recent advances, prospects and challenges. 2021 , 40, 3337-3356		13
901	Accelerate the alkaline hydrogen evolution reaction of the heterostructural Ni2P@Ni(OH)2/NF by dispersing a trifle of Ru on the surface. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 26329-26339	9 ^{6.7}	3
900	Hydrogen production via aqueous-phase reforming for high-temperature proton exchange membrane fuel cells - a review. 1, 81		
899	Dynamics and Hysteresis of Hydrogen Intercalation and Deintercalation in Palladium Electrodes: A Multimodal In Situ X-ray Diffraction, Coulometry, and Computational Study. 2021 , 33, 5872-5884		2
898	A novel hydrogen liquefaction process based on LNG cold energy and mixed refrigerant cycle. 2021 ,		2
897	Mechanochemical synthesis and dehydrogenation properties of Yb(AlH4)3. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 26437-26444	6.7	1
896	IrRuOx/TiO2 a stable electrocatalyst for the oxygen evolution reaction in acidic media. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 25918-25928	6.7	4
895	Biopolymer-derived (nano)catalysts for hydrogen evolution via hydrolysis of hydrides and electrochemical and photocatalytic techniques: A review. 2021 , 182, 1056-1090		10
894	A DFT study on the outstanding hydrogen storage performance of the Ti-decorated MoS2 monolayer. 2021 , 26, 101329		2
893	Sustainable Hydrogen Production from Starch Aqueous Suspensions over a Cd0.7Zn0.3S-Based Photocatalyst. 2021 , 11, 870		O
892	The integration of hydrogenation and carbon capture utilisation and storage technology: A potential low-carbon approach to chemical synthesis in China. 2021 , 45, 19789		4
891	Are Carbon-Based Materials Good Supports for the Catalytic Reforming of Ammonia?. 2021 , 125, 15950)-1595	80
890	Effects of Hydrogen Addition on Design, Maintenance and Surveillance of Gas Networks. 2021 , 9, 1219		2

889	Poly(acrylic acid)-modified silica nanoparticles as a nonmetal catalyst for NaBH4 methanolysis. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 23236-23244	6.7	9
888	Photocatalytic Properties of Mn:CdS Colloidal Quantum Dots, Stabilized by Mercaptoacetic Acid. 2021 , 88, 539		1
887	Ru-Based Catalysts for Ammonia Decomposition: A Mini-Review. 2021 , 35, 11693-11706		7
886	Monitoring System for Tracking a PV Generator in an Experimental Smart Microgrid: An Open-Source Solution. 2021 , 13, 8182		13
885	Investigation of the optimum conditions for adsorptive hydrogen storage. 1		O
884	Thermally Cross-Linked Amidoxime-Functionalized Polymers of Intrinsic Microporosity Membranes for Highly Selective Hydrogen Separation. 2021 , 9, 9426-9435		3
883	The high-capacity hydrogen storage of B6Ca2 and B8Ca2 inverse sandwiches. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 24225-24232	6.7	1
882	Hydrogen-Driven Surface Segregation in Pd Alloys from Atomic-Scale Simulations. 2021 , 125, 17248-17	260	4
881	Hydrogen storage in lithium, sodium and magnesium-decorated on tetragonal silicon carbide. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 24190-24201	6.7	4
880	Halide-free Grignard reagents for the synthesis of superior MgH2 nanostructures. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 28675-28685	6.7	1
879	Developing Ideal Metalorganic Hydrides for Hydrogen Storage: From Theoretical Prediction to Rational Fabrication. 2021 , 3, 1417-1425		4
878	Resilient operation of multi-energy industrial park based on integrated hydrogen-electricity-heat microgrids. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 28855-28869	6.7	5
877	Design and exergy based optimization of a clean energy system with fuel Cell/MED and hydrogen storage option. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	3
876	Hydrogen energy systems: A critical review of technologies, applications, trends and challenges. 2021 , 146, 111180		120
875	Theoretical investigation of the surface orientation impact on the hydrogen vacancy formation of MgH2. 2021 , 710, 121850		О
874	Packaging with hydrogen gas modified atmosphere can extend chicken egg storage. 2021 ,		1
873	Self-supported Ni3N nanoarray as an efficient nonnoble-metal catalyst for alkaline hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 27037-27043	6.7	7
872	Recent Advances in Catalysis Based on Transition Metals Supported on Zeolites. 2021 , 9, 716745		3

MoS2 Effect on Nickel Electrochemical Activation: An Atomistic/Experimental Approach. 2021, 125, 18640-18652 871 Hybrid porous polymers based on cage-like organosiloxanes: synthesis, properties and applications. 870 35 2021, 119, 101419 On-Board Liquid Hydrogen Cold Energy Utilization System for a Heavy-Duty Fuel Cell Hybrid Truck. 869 2 2021, 12, 136 Evaluating the use of unassimilated bio-anode with different exposed surface areas for bioenergy 868 production using solar-powered microbial electrolysis cell. 2021, 45, 20143 Correlation among hydrogenation, magnetoelastic coupling, magnetic anisotropy, and magnetoresistance in magnetostrictive, hydrogen-absorbing palladium-cobalt alloy films for 867 6.7 4 hydrogen sensing. International Journal of Hydrogen Energy, 2021, 46, 30204-30215 Co/MoS2 nanocomposite catalyzed H2 evolution upon dimethylamine-borane hydrolysis and in situ 866 6 tandem reaction. 2021, 130, 108691 CFD analysis and experimental measurements of the liquid aluminum spray formation for an 865 O All 20 based hydrogen production system. *International Journal of Hydrogen Energy*, **2021**, 46, 30615-30624 Electrosynthesis of Ni-Co/Hydroxyapatite as a Catalyst for Hydrogen Generation via the Hydrolysis 864 of Aqueous Sodium Borohydride (NaBH4) Solutions. 2021, 15, 389-394 Performance Analysis and Optimization of Solar Thermochemical Water-Splitting Cycle with Single 863 \circ and Multiple Receivers. 2100220 Low carbon ultrasonic production of alternate fuel: Operational and mechanistic concerns of the 862 sonochemical process of hydrogen generation under various scenarios. International Journal of 6.7 Hydrogen Energy, **2021**, 46, 26770-26787 Hydrogen and ethanol: Production, storage, and transportation. International Journal of Hydrogen 861 6.7 30 Energy, 2021, 46, 27330-27348 Reduced Graphene Oxide-Wrapped Palladium Nanowires Coated with a Layer of Zeolitic 860 4 Imidazolate Framework-8 for Hydrogen Sensing. 2021, 4, 8081-8093 Hydrogen storage characteristics of bio-based porous carbons of different origin: A comparative 859 14 review. Robust multi-objective optimization of methanol steam reforming for boosting hydrogen 858 6.7 production. International Journal of Hydrogen Energy, 2021, 46, 29795-29811 A review of alternative polymer electrolyte membrane for fuel cell application based on sulfonated 8 857 poly(ether ether ketone). Hydrogen Economy Development Opportunities by Inter-Organizational Digital Knowledge 856 Networks. 2021, 13, 9194 A study on hydrogen, the clean energy of the future: Hydrogen storage methods. 2021, 40, 102676 855 50 Combined dynamic operation of PEM fuel cell and continuous dehydrogenation of 854 perhydro-dibenzyltoluene. International Journal of Hydrogen Energy, 2021, 46, 35662-35662

853	Energetic and exergetic performance of a novel polygeneration energy system driven by geothermal energy and solar energy for power, hydrogen and domestic hot water. 2021 , 175, 318-336		3
852	Li-decorated B2O as potential candidates for hydrogen storage: A DFT simulations study. International Journal of Hydrogen Energy, 2021 , 46, 33486-33495	6.7	4
851	Hydrogen-based systems for integration of renewable energy in power systems: Achievements and perspectives. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 31963-31983	6.7	32
850	A hierarchical and branch-like NiCoS/NF material prepared by gradient electrodeposition method for oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 36629-36629	6.7	1
849	Numerical simulation of hydrogen filling process in novel high-pressure microtube storage device. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 36859-36859	6.7	О
848	RuNi alloy nanoparticles encapsulated in oxygen-doped carbon as bifunctional catalyst towards hydrogen electrocatalysis.		O
847	A detailed study on the micro-explosion of burning iron particles in hot oxidizing environments. 2021 , 111755		3
846	Enzymatic Hydrogen Electrosynthesis at Enhanced Current Density Using a Redox Polymer. 2021 , 11, 1197		O
845	Past, Present and Near Future: An Overview of Closed, Running and Planned Biomethanation Facilities in Europe. 2021 , 14, 5591		6
844	Generating Mechanism of Catalytic Effect for Hydrogen Absorption/Desorption Reactions in NaAlH4IIiCl3. 2021 , 11, 8349		1
843	Sustainable hydrogen roadmap: A holistic review and decision-making methodology for production, utilisation and exportation using Qatar as a case study. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	16
842	Efficient hydrogen generation from the NaBH4 hydrolysis by amorphous CoMoB alloy supported on reduced graphene oxide. 2021 , 36, 4154		1
841	Study on fracture strain of CrMo steel in high pressure hydrogen. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 31501-31509	6.7	1
840	Modification of graphenylene nanostructure with transition metals (Fe, Sc and Ti) to promote hydrogen storage ability: A DFT-D3 study. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	O
839	Hydrogen sorption behavior of mechanically synthesized MgAg alloys. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 33152-33163	6.7	5
838	Efficient microbial electrosynthesis through the barrier and shearing effect of fillers. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 36103-36103	6.7	2
837	Hydrogen generation by methanol steam reforming process by delafossite-type CuYO2 nanopowder catalyst. 2021 , 324, 111305		1
836	H2 production from the hydrolytic dehydrogenation of methylamine-borane catalyzed by sulfonated reduced graphene oxide-aided synthesis of ruthenium nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 32523-32535	6.7	1

835	Progress of graphene and loaded transition metals on Mg-based hydrogen storage alloys. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 33468-33485	6.7	3
834	Current Perspective of Sustainable Utilization of Agro Waste and Biotransformation of Energy in Mushroom. 2021 , 274-302		2
833	Highly conductive partially cross-linked poly(2,6-dimethyl-1,4-phenylene oxide) as anion exchange membrane and ionomer for water electrolysis. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	3
832	Preparation and electrochemical hydrogen storage application of mesoporous carbon CMK-3 coated Co2B alloy composite. 2021 , 778, 138762		2
831	Air-Stable Nanoporous Aluminum/Lithium Borohydride Fuel Pellets for Onboard Hydrogen Generation by Hydrolysis with Pure Water. 2021 , 4, 9742-9750		O
830	Investigation on hydrogen-fueled combustion characteristics and thermal performance in a micro heat-recirculation combustor inserted with block. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	5
829	Interfacing with Fe-N-C Sites Boosts the Formic Acid Dehydrogenation of Palladium Nanoparticles. 2021 , 13, 46749-46755		2
828	Achieving Complete Hydrogen Evolution from N2H4BH3 over Mesoporous TiO2 Immobilized NiPt Alloy Nanoparticles. 2021 , 6, 9185-9190		1
827	Numerical Modeling of Combustion and Detonation in Aqueous Foams. 2021 , 14, 6233		1
826	Hydrogen production via aqueous-phase reforming for high-temperature proton exchange membrane fuel cells - a review. 1, 81		1
825	WS-WC-WO nano-hollow spheres as an efficient and durable catalyst for hydrogen evolution reaction. 2021 , 8, 28		1
824	Improvement of Mg-Based Hydrogen Storage Materials by Metal Catalysts: Review and Summary. 2021 , 6, 8809-8829		4
823	Sustainable direct H2O2 synthesis over Pd catalyst supported on mesoporous carbon: The effect of surface nitrogen functionality. 2021 , 376, 1-8		3
822	A new design with preheating and layered porous ceramic for hydrogen production through methane steam reforming process. 2021 , 231, 120952		5
821	A High-Rate Electrode with Grotthuss Topochemistry for Membrane-Free Decoupled Acid Water Electrolysis. 2021 , 11, 2102057		6
820	Review of metal hydride hydrogen storage thermal management for use in the fuel cell systems. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 31699-31726	6.7	12
819	Synthesis of highly active and stable Pd/C catalysts toward HCOOH dehydrogenation by a simple NH3 adsorption method. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	О
818	Pd nanoparticles immobilized on aniline-functionalized MXene as an effective catalyst for hydrogen production from formic acid. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 33098-33106	6.7	1

817	Design and fabrication of hollow structured Cu2MoS4/ZnIn2S4 nanocubes with significant enhanced photocatalytic hydrogen evolution performance. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 37847-37847	6.7	3
816	Cobalt-Doped Silica Organic-Inorganic Materials by Sol-Gel Method: Preparation and Thermal Stability Calcined under N2 Atmosphere. 2021 , 219, 247-259		1
815	Recent progress and challenges in photocatalytic water splitting using layered double hydroxides (LDH) based nanocomposites. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	5
814	A review of technologies and applications on versatile energy storage systems. 2021 , 148, 111263		46
813	An overview of reactive hydride composite (RHC) for solid-state hydrogen storage materials. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 31674-31698	6.7	9
812	Identifying possible drivers of rebound effects and reverse rebounds among households with rooftop photovoltaics. 2021 , 38, 71-83		4
811	Numerical investigation of the effect of two-step injection (direct and port injection) of hydrogen blending and natural gas on engine performance and exhaust gas emissions. 2021 , 231, 120957		7
810	Techno-enviro-economic analyses of hydrogen supply chains with an ASEAN case study. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 32914-32928	6.7	Ο
809	Shrinking and receding horizon approaches for long-term operational planning of energy storage and supply systems. 2021 , 122066		1
808	Industrial decarbonization via hydrogen: A critical and systematic review of developments, socio-technical systems and policy options. 2021 , 80, 102208		25
807	Alcohol-substituted Vinyl Polymers for Stockpiling Hydrogen.		О
806	Ultrahigh-response hydrogen sensor based on PdO/NiO co-doped InO nanotubes. 2021 , 599, 533-542		8
805	Composite materials from transition metal carbides and ionic liquids as electrocatalyst for hydrogen evolution in alkaline media. 2021 , 898, 115620		2
804	Numerical investigation of three deflagration-to-detonation transition conditions related to the velocity of the spontaneous reaction wave. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	2
803	Hydrogen absorption performance investigation of a cylindrical MH reactor with rectangle heat exchange channels. 2021 , 232, 121101		4
802	Mixed-dimensional niobium disulfide-graphene foam heterostructures as an efficient catalyst for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 33679-33688	6.7	3
801	A conceptual framework for understanding rebound effects with renewable electricity: A new challenge for decarbonizing the electricity sector. 2021 , 176, 423-432		3
800	A combined heat and green hydrogen (CHH) generator integrated with a heat network. 2021 , 246, 1140	586	O

799	Pore scale investigation of hydrogen injection in sandstone via X-ray micro-tomography. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 34822-34829	6.7	10
798	Optimized H2 fueling station arrangement model based on total cost of ownership (TCO) of fuel cell electric vehicle (FCEV). <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 34116-34127	6.7	1
797	On-site hydrogen production using heavy naphtha by maximizing the hydrogen output of a membrane reactor system. 2021 , 508, 230332		О
796	Hydrogen generation from sodium borohydride hydrolysis promoted by MOF-derived carbon supported cobalt catalysts. 2021 , 626, 127033		4
795	Hydrogen storage technologies for stationary and mobile applications: Review, analysis and perspectives. 2021 , 149, 111311		50
794	Facile layer-by-layer self-assembly of 2D perovskite niobate and layered double hydroxide nanosheets for enhanced photocatalytic oxygen generation. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 34276-34286	6.7	3
793	Hydrogen as energy carrier: Techno-economic assessment of decentralized hydrogen production in Germany. 2021 , 177, 915-931		22
792	Numerical and experimental analysis of jet release and jet flame length for qualitative risk analysis at hydrogen refueling station. 2021 , 155, 145-154		4
791	Hydrogen Production, Distribution, Storage and Power Conversion in a Hydrogen Economy - A Technology Review. 2021 , 8, 100172		16
790	Proton exchange membrane fuel cell integrated with microchannel membrane-based absorption cooling for hydrogen vehicles. 2021 , 178, 560-573		4
7 ⁸ 9	Synthesis of Al doped CoP2/rGO composite and its high electrocatalytic activity for hydrogen evolution reaction. 2021 , 303, 122552		1
788	Sorption and permeation study of polyetherimide/hydrophobic silica nanocomposite membrane for effective syngas (H2/CO/CO2) separation. 2021 , 279, 119774		1
787	Machine learning based predictive model for methanol steam reforming with technical, environmental, and economic perspectives. 2021 , 426, 131639		3
786	Hydrogen wettability of quartz substrates exposed to organic acids; Implications for hydrogen geo-storage in sandstone reservoirs. 2021 , 207, 109081		26
7 ⁸ 5	Promoting developments of hydrogen powered vehicle and solar PV hydrogen production in China: A study based on evolutionary game theory method. 2021 , 237, 121649		18
784	Satisfactory catalyst stability in SNG production using real biogas despite sulfur poisoning evidences at different reactor zones. 2021 , 306, 121682		1
783	Effective orthophosphate removal from surface water using hydrogen-oxidizing bacteria: Moving towards applicability. 2021 , 800, 149648		1
782	Parametric technical-economic investigation of a pressurized hydrogen electrolyzer unit coupled with a storage compression system. 2021 , 180, 502-515		1

781	Catalytic systems mimicking the [FeFe]-hydrogenase active site for visible-light-driven hydrogen production. 2021 , 448, 214172	8
780	Cobalt nanoparticle supported on layered double hydroxide: Effect of nanoparticle size on catalytic hydrogen production by NaBH hydrolysis. 2021 , 290, 117990	2
779	Atomic layer deposited Pt nanoparticles on functionalized MoS2 as highly sensitive H2 sensor. 2022 , 571, 151256	3
778	Study on the energy efficiency of bioethanol-based liquid hydrogen production process. 2022 , 238, 122032	O
777	g-C3N4 Derived Materials for Photocatalytic Hydrogen Production: A Mini Review on Design Strategies. 2022 , 10, 653-663	2
776	Analysis of sodium generation by sodium oxide decomposition on corrosion resistance materials: a new approach towards sodium redox water-splitting cycle 2021 , 11, 21017-21022	2
775	Palladium nanoparticle-decorated multi-layer TiCT dual-functioning as a highly sensitive hydrogen gas sensor and hydrogen storage 2021 , 11, 7492-7501	7
774	Preparation and study of characteristics of LiCoO/FeO/LiBO nanocomposites as ideal active materials for electrochemical hydrogen storage 2021 , 11, 23430-23436	5
773	Technoeconomic analysis of metal@rganic frameworks for bulk hydrogen transportation. 2021 , 14, 1083-1094	4
772	Comparison of Hydrogen Powertrains with the Battery Powered Electric Vehicle and Investigation of Small-Scale Local Hydrogen Production Using Renewable Energy. 2021 , 2, 76-100	7
771	Effects of adding Nd on the microstructure and dehydrogenation performance of Mg90Al10 alloy. 2021 , 171, 110795	3
770	Hydrogen Production From Waste and Renewable Resources. 2021, 22-46	2
769	Behavior of Ammonia Borane as Solid-State Hydrogen Storage Material. 2021 , 29-36	
768	Synergetic effect of C and Ni on hydrogen release from MgNi-electrochemically synthesized reduced graphene oxide based hydride. 2021 , 5, 4414-4424	2
767	Prospects and Challenges of Green Hydrogen Economy via Multi-Sector Global Symbiosis in Qatar. 2021 , 1,	14
766	Critical assessment of reaction pathways for conversion of agricultural waste biomass into formic acid. 2021 , 23, 1536-1561	13
765	SiBN monolayers as promising candidates for hydrogen storage. 2020 , 22, 13563-13568	10
764	Numerical Simulation of Turbulent Hydrogen Combustion Regimes Near the Lean Limit. 2020 , 14, 940-945	3

763	Microemulsion vs. Precipitation: Which Is the Best Synthesis of Nickelleria Catalysts for Ethanol Steam Reforming?. 2021 , 9, 77		2
762	Controlling Strategy for the Performance and NOx Emissions of the Hydrogen Internal Combustion Engines with a Turbocharger.		2
761	Obtenio de gil de siltese por reforma a seco do metano em unidade piloto. 2021 , 26,		
760	Reversible CO storage and efficient separation using Ca decorated porphyrin-like porous CN fullerene: a DFT study 2021 , 11, 34402-34409		О
759	Synergistically enhanced alkaline hydrogen evolution reaction by coupling CoFe layered double hydroxide with NiMoO4 prepared by two-step electrodeposition.		1
758	Hydrogen production, storage and delivery in regards to automotive applications IA brief review. 2021 ,		О
757	Marine engines running on hydrogen additive in diesel fuel for emission reduction. 2021,		
756	Hydrogen Production Technologies: From Fossil Fuels toward Renewable Sources. A Mini Review. 2021 , 35, 16403-16415		19
755	Multiscale insights into hydrogen charging behavior in metal hydride reactor packed with porous ZrCo particles. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 40217-40217	6.7	О
754	Membrane-Based Electrolysis for Hydrogen Production: A Review. 2021 , 11,		4
753	Synthesis of silicon-based nanosheets decorated with Pd/Li particles with enhanced hydrogen storage properties. 2021 , 4, 1343		6
752	NiFe-layered double hydroxides arrays for oxygen evolution reaction in fresh water and seawater. 2021 , 100883		8
751	Safety Design and Engineering Solution of Fuel Cell Powered Ship in Inland Waterway of China. 2021 , 12, 202		1
750	Improved H-Storage Performance of Novel Mg-Based Nanocomposites Prepared by High-Energy Ball Milling: A Review. 2021 , 14, 6400		4
749	Room-Temperature Hydrogen Adsorption via Spillover in Pt Nanoparticle-Decorated UiO-66 Nanoparticles: Implications for Hydrogen Storage. 2021 , 4, 11269-11280		6
748	Fluidization analysis for catalytic decomposition of methane over carbon blacks for solar hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	О
747	Design and Electrochemical Study of Three-Dimensional Expanded Graphite and Reduced Graphene Oxide Nanocomposites Decorated with Pd Nanoparticles for Hydrogen Storage. 2021 , 125, 22970-2298	31	0
746	The effects of hydrogen-induced lattice distortion and Nb-D formation on its permeation through niobium. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 39932-39932	6.7	O

745	Perspectives for the development of energy strategies - Challenges towards a hydrogen economy in Cyprus. 1-17	
744	Ab-initio study of the structural, optoelectronic, magnetic, hydrogen storage properties and mechanical behavior of novel combinations of hydride perovskites LiXH3 (X = Cr, Fe, Co, & Zn) for hydrogen storage applications. 2021 , 20, 2284	O
743	Hydrogen production, storage, utilisation and environmental impacts: a review. 1	17
742	Review and comparison of various hydrogen production methods based on costs and life cycle impact assessment indicators. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 38612-38635	26
741	Thermocatalytic Hydrogen Production Through Decomposition of Methane-A Review. 2021 , 9, 736801	3
740	Photocatalytic water splitting ability of Fe/MgO-rGO nanocomposites towards hydrogen evolution. International Journal of Hydrogen Energy, 2021 , 46, 38232-38246 6.7	7
739	Improvement of hydrogen storage performance of MgH2 by MnMoO4 rod composite catalyst. 2021 , 121, 106750	9
738	The effects of different flow field patterns on polymer electrolyte membrane fuel cell performance. 2021 , 248, 114818	3
737	Fire safety of hydrogen filling stations. 2020 , 29, 42-50	1
736	Hydrogenation Kinetics of Metal Hydride Catalytic Layers. 2021,	4
736 735	Hydrogenation Kinetics of Metal Hydride Catalytic Layers. 2021, Potential reversible and high-capacity hydrogen storage medium: Li-decorated B3S monolayers. 2021, 29, 102938	4
	Potential reversible and high-capacity hydrogen storage medium: Li-decorated B3S monolayers.	ĺ
735	Potential reversible and high-capacity hydrogen storage medium: Li-decorated B3S monolayers. 2021 , 29, 102938	4
735 734	Potential reversible and high-capacity hydrogen storage medium: Li-decorated B3S monolayers. 2021, 29, 102938 Hydrogen Sorption Properties of a Novel Refractory Ti-V-Zr-Nb-Mo High Entropy Alloy. 2021, 2, 399-413 Comparative life cycle assessment of biochar-based lignocellulosic biohydrogen production:	1
735 734 733	Potential reversible and high-capacity hydrogen storage medium: Li-decorated B3S monolayers. 2021, 29, 102938 Hydrogen Sorption Properties of a Novel Refractory Ti-V-Zr-Nb-Mo High Entropy Alloy. 2021, 2, 399-413 Comparative life cycle assessment of biochar-based lignocellulosic biohydrogen production: Sustainability analysis and strategy optimization. 2022, 344, 126261 High temperature-induced myoglobin-mimic catalytic structure having high axial ligand content for	4 1
735 734 733 732	Potential reversible and high-capacity hydrogen storage medium: Li-decorated B3S monolayers. 2021, 29, 102938 Hydrogen Sorption Properties of a Novel Refractory Ti-V-Zr-Nb-Mo High Entropy Alloy. 2021, 2, 399-413 Comparative life cycle assessment of biochar-based lignocellulosic biohydrogen production: Sustainability analysis and strategy optimization. 2022, 344, 126261 High temperature-induced myoglobin-mimic catalytic structure having high axial ligand content for one-compartment hydrogen peroxide fuel cells. Efficiency improvement of a fuel cell cogeneration plant linked with district heating: Construction	4 1 0
735 734 733 732 731	Potential reversible and high-capacity hydrogen storage medium: Li-decorated B3S monolayers. 2021, 29, 102938 Hydrogen Sorption Properties of a Novel Refractory Ti-V-Zr-Nb-Mo High Entropy Alloy. 2021, 2, 399-413 Comparative life cycle assessment of biochar-based lignocellulosic biohydrogen production: Sustainability analysis and strategy optimization. 2022, 344, 126261 High temperature-induced myoglobin-mimic catalytic structure having high axial ligand content for one-compartment hydrogen peroxide fuel cells. Efficiency improvement of a fuel cell cogeneration plant linked with district heating: Construction of a water condensation latent heat recovery system and analysis of real operational data. 2021, 117754	4 1 0

727	Selection of reagent ratio for hydrogen production via Al nanopowder oxidation. 2020, 1709, 012019	
726	Experimental Research of Thermal Processes in Hydrogen-Oxygen Air Heater for Autonomous Power Supply System. 2020 , 1683, 022081	
725	Normative regulation of the safety of infrastructural objects of hydrogen energetics. 2020 , 29, 5-12	
724	Hydrogen. 2022 , 419-444	
723	Seawater electrolysis. 2022, 305-326	
722	Hydrogen permeation behavior and mechanism of multi-layered graphene coatings and mitigation of hydrogen embrittlement of pipe steel. 2022 , 573, 151529	1
721	Platinum-Nickel alloy thin films for low concentration hydrogen sensor application. 2022 , 892, 162237	2
720	Effect of an Alumina Supported Palladium Catalyst on the Magnesium Sulfate Decomposition Kinetics. 2020 , 23,	1
719	Hydrogen. 2020 , 168-194	
718	Bioelectrochemical and Reversible Interconversion in the Proton/Hydrogen and Carbon Dioxide/Formate Redox Systems and Its Significance in Future Energy Systems. 2020 , 81-99	2
717	Comparative study between the simulation and experimental results of H2 production from water vapour plasmolysis. 2020 , 8, 835-858	2
716	Engineering interfacial charge transfer channel for efficient photocatalytic H2 evolution: the interplay of CoPx and Ca2+ dopant. 2021 , 120887	4
715	Petroleum Sector-Driven Roadmap for Future Hydrogen Economy. 2021 , 11, 10389	O
714	Borophene: Two-dimensional Boron Monolayer: Synthesis, Properties, and Potential Applications. 2021 ,	16
713	Enhanced hydrogen storage performance of Cu3(BTC)2 in situ inserted with few-layer silicon-based nanosheets. <i>International Journal of Hydrogen Energy</i> , 2021 ,	О
712	Prospects and characteristics of thermal and electrochemical energy storage systems. 2021 , 44, 103443	5
711	Hydrogen Storage Performance of Metal Nanoparticle Decorated Multi-walled Carbon Nanotubes. 2021 , 103-125	1
710	Methanol-Based Economy: A Way Forward to Hydrogen. 2021 , 563-585	

709	Process simulation for the production of methanol via CO2 reforming of methane route. 2020,		O
708	Experimental study of the polytropic index of the compression stroke for a direct injection hydrogen engine. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 28196-28203	6.7	1
707	Polyaniline-based gas sensors: DFT study on the effect of side groups. 2022 , 1207, 113526		1
706	Electrochemical production of hydrogen in molten salt. 2022 , 251, 114980		2
705	Direct biohydrogen production from algae. 2022 , 303-330		1
704	Enhancement of hydrogen permeation stability at high temperatures for Pd/Nb30Ti35Co35/Pd composite membranes by HfN intermediate layer. 2022 , 643, 120062		1
703	Crystal interpenetration featured NiWSe@NF acicular nanowires for performance enhanced water splitting. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	0
702	Green hydrogen-based pathways and alternatives: Towards the renewable energy transition in South America's regions P art B. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 1-1	6.7	O
701	Renewable hydrogen driven CHCP device. International Journal of Hydrogen Energy, 2021,	6.7	0
700	Work Function-Based Metal©xideBemiconductor Hydrogen Sensor and Its Functionality: A Review. 2021 , 8, 2100649		4
699	Aerosol-assisted chemical vapor deposition of nickel sulfide nanowires for electrochemical water oxidation. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	4
698	Impacts of COVID-19 pandemic on electrical energy storage technologies. e305		1
697	Figures of Merit for Photocatalysis: Comparison of NiO/La-NaTaO3 and Synechocystis sp. PCC 6803 as a Semiconductor and a Bio-Photocatalyst for Water Splitting. 2021 , 11, 1415		1
696	KCC-1 Supported CuCo Bimetal Catalysts for Promoting Hydrogen Production from Ammonia Borane Hydrolysis. 1		1
695	Influence of Hydrogen Embrittlement on Ductile B rittle Transition Temperature Determined on Mini-Charpy Specimens Made in X65 Steel. 2021 , 21, 2290		1
694	Hydrophilic Isopropanol/acetone-substituted Polymers for Safe Hydrogen Storage.		O
693	Catalytic Hydrogen Evolution of NaBH Hydrolysis by Cobalt Nanoparticles Supported on Bagasse-Derived Porous Carbon 2021 , 11,		0
692	The comprehensive review for development of heat exchanger configuration design in metal hydride bed. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 2461-2461	6.7	2

691	High temperature phase transformation and low temperature electrochemical properties of La1.9Y4.1Ni20.8Mn0.2Al H2-storage alloy. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	0
690	Critical aspects in the development of anodes for use in seawater electrolysis. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	4
689	Hydrogen solubility, diffusivity, and trapping in quenched and tempered Ni-containing steels. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 3141-3141	6.7	О
688	RESEARCH OF THE KINETICS OF THE FIRST HYDRATION OF MATERIAL TIFE + TI2FE, OBTAINED BY EXPLOSIVE LOADING OF MIXTURES OF TITANIUM AND IRON POWDERS. 2021 , 61-68		
687	Recent developments in high-performance Nafion membranes for hydrogen fuel cells applications. 2021 ,		4
686	Optimizing the Molecular Weight of Poly(vinylidene fluoride) for Competitive Perfluorosulfonic Acid Membranes.		O
685	Laser structural training, artificial intelligence-based acoustic emission localization and structural/noise signal distinguishment in a thick FCEV fuel tank. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 4236-4236	6.7	
684	First-principles study on methane storage properties of porous graphene modified with Mn. 2021 , 127, 1		О
683	Macroeconomic Factors Influencing Public Policy Strategies for Blue and Green Hydrogen. 2021 , 14, 7	938	2
682	Two-Dimensional Polymers and Polymerizations. 2021,		24
682 681	Two-Dimensional Polymers and Polymerizations. 2021 , Remarkable catalytic effect of Ni and ZrO2 nanoparticles on the hydrogen sorption properties of MgH2. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 4716-4716	6.7	3
	Remarkable catalytic effect of Ni and ZrO2 nanoparticles on the hydrogen sorption properties of	6.7	
681	Remarkable catalytic effect of Ni and ZrO2 nanoparticles on the hydrogen sorption properties of MgH2. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 4716-4716	6.7	3
681 680	Remarkable catalytic effect of Ni and ZrO2 nanoparticles on the hydrogen sorption properties of MgH2. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 4716-4716 Efficient hydrogen storage on Al decorated C24N24: a DFT study. 2021 , 45, 21225-21235	6.7	3
681 680 679	Remarkable catalytic effect of Ni and ZrO2 nanoparticles on the hydrogen sorption properties of MgH2. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 4716-4716 Efficient hydrogen storage on Al decorated C24N24: a DFT study. 2021 , 45, 21225-21235 Thermodynamic Analysis on Hydrogen Storage System. 2021 , Global hydrogen development - A technological and geopolitical overview. <i>International Journal of</i>	,	3 0
681 680 679 678	Remarkable catalytic effect of Ni and ZrO2 nanoparticles on the hydrogen sorption properties of MgH2. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 4716-4716 Efficient hydrogen storage on Al decorated C24N24: a DFT study. 2021 , 45, 21225-21235 Thermodynamic Analysis on Hydrogen Storage System. 2021 , Global hydrogen development - A technological and geopolitical overview. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 7016-7016 Localized conversion of ZnO nanorods for fabricating Metal-Organic framework MAF-5 membranes	,	3 0 1
681 680 679 678	Remarkable catalytic effect of Ni and ZrO2 nanoparticles on the hydrogen sorption properties of MgH2. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 4716-4716 Efficient hydrogen storage on Al decorated C24N24: a DFT study. 2021 , 45, 21225-21235 Thermodynamic Analysis on Hydrogen Storage System. 2021 , Global hydrogen development - A technological and geopolitical overview. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 7016-7016 Localized conversion of ZnO nanorods for fabricating Metal-Organic framework MAF-5 membranes for hydrogen separation. 2022 , 136, 109126 A comprehensive review of solid oxide fuel cells operating on various promising alternative fuels.	,	3 0 1 11

673	Protonated NH2-MIL-125 via HCl vapor to introduce the moiety with charge and ample hydrogen as a novel bifunctional photocatalyst: Enhanced photocatalytic H2 production and NO purification. 2022 , 432, 134244		O
672	Designing Pt-based subsurface alloy catalysts for the dehydrogenation of perhydro-dibenzyltoluene: A first-principles study. 2022 , 579, 152142		1
671	Parametric optimization of coupled fin-metal foam metal hydride bed towards enhanced hydrogen absorption performance of metal hydride hydrogen storage device. 2022 , 243, 123044		1
670	High purity, self-sustained, pressurized hydrogen production from ammonia in a catalytic membrane reactor. 2022 , 431, 134310		4
669	Simple hydrogen gas production method using waste silicon. 2022 , 13, 100254		
668	Morphology engineering of LiFeO2 nanostructures through synthesis controlling for electrochemical hydrogen storage inquiries. 2022 , 313, 123025		2
667	Highly controlled structured catalysts for on-board methanol reforming. 2022, 68, 19-26		О
666	Advanced exergy analysis of a PEM fuel cell with hydrogen energy storage integrated with organic Rankine cycle for electricity generation. 2022 , 51, 101885		1
665	Magnesium-based complex hydride mixtures synthesized from stainless steel and magnesium hydride with subambient temperature hydrogen absorption capability. 2022 , 901, 163489		1
664	Construction of Carbon Covered Mg 2NiH 4 Nanocrystalline for Hydrogen Storage.		
663	Research on the Market Diffusion of Fuel Cell Vehicles in China Based on the Generalized Bass Model. 2022 , 58, 2950-2960		1
662	Aqueous-Phase Reforming of Glycerol Over Pt-Co Catalyst: Effect of Process Variables.		
661	Construction of Carbon Covered Mg 2NiH 4 Nanocrystalline for Hydrogen Storage.		
660	Operation Optimization for Wind Farm and Hydrogen Fueling Stations via Energy Trading. 2021 ,		O
659	Hydrogen production from hydrolysis of magnesium wastes reprocessed by mechanical milling under air. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 5074-5084	6.7	О
658	Flow pattern analysis and multi-objective optimization of helically corrugated tubes used in the intermediate heat exchanger for nuclear hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 4885-4902	6.7	О
657	Effect of Nickel Precursor on the Catalytic Performance of Graphene Aerogel-Supported Nickel Nanoparticles for the Production of CO x -free Hydrogen by Ammonia Decomposition. 2100794		1
656	Reducing NOx Emission of Swirl-Stabilized Ammonia/Methane Tubular Flames through a Fuel-Oxidizer Mixing Strategy.		Ο

655	Thermodynamics and Kinetic Modeling of the ZnSO4[H2O Thermal Decomposition in the Presence of a Pd/Al2O3 Catalyst. 2022 , 15, 548		1
654	Hydrogen production via steam reforming of small organic compounds present in the aqueous fraction of bio-oil over Ni-La-Me catalysts (Me = Ce, Ti, Zr). 1		1
653	Catalytic Hydrogenation of C2H2 over Amorphous CeNi2Hx and Crystalline CeNi2: Effects of Hydrogen-Induced Amorphization and Oxidation. 2022 , 63,		
652	Facilitating green ammonia manufacture under milder conditions: what do heterogeneous catalyst formulations have to offer?. 2022 , 13, 890-908		2
651	Experimental Volumetric Hydrogen Uptake Determination at 77 K of Commercially Available Metal-Organic Framework Materials. 2022 , 8, 5		2
650	Highly active PdPt bimetallic nanoparticles synthesized by one-step bioreduction method: Characterizations, anticancer, antibacterial activities and evaluation of their catalytic effect for hydrogen generation. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	10
649	Biomass-derived carbon nanosheets coupled with MoO2/Mo2C electrocatalyst for hydrogen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	2
648	Hydrogen Energy Demand Growth Prediction and Assessment (2021🛭 050) Using a System Thinking and System Dynamics Approach. 2022 , 12, 781		4
647	Numerical approach to analyze fluid flow in a type C tank for liquefied hydrogen carrier (part 1: Sloshing flow). <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 5609-5626	6.7	2
646	Development and assessment of a hydrogen car operated by a vertical axis wind turbine. 1-16		
645	The magnetically separable Pd/C3N4/Fe3O4 nanocomposite as a bifunctional photocatalyst for tetracycline degradation and hydrogen evolution. 2022 , 641, 128404		1
, i	The magnetically separable Pd/C3N4/Fe3O4 nanocomposite as a bifunctional photocatalyst for		1 5
645	The magnetically separable Pd/C3N4/Fe3O4 nanocomposite as a bifunctional photocatalyst for tetracycline degradation and hydrogen evolution. 2022 , 641, 128404 Palladium Nanosheet-Based Dual Gas Sensors for Sensitive Room-Temperature Hydrogen and		
645	The magnetically separable Pd/C3N4/Fe3O4 nanocomposite as a bifunctional photocatalyst for tetracycline degradation and hydrogen evolution. 2022, 641, 128404 Palladium Nanosheet-Based Dual Gas Sensors for Sensitive Room-Temperature Hydrogen and Carbon Monoxide Detection 2022, Single Step Electrochemical Semi-Exfoliated S-Doped Graphene-Like Structures from Commercial	6.7	5
645	The magnetically separable Pd/C3N4/Fe3O4 nanocomposite as a bifunctional photocatalyst for tetracycline degradation and hydrogen evolution. 2022, 641, 128404 Palladium Nanosheet-Based Dual Gas Sensors for Sensitive Room-Temperature Hydrogen and Carbon Monoxide Detection 2022, Single Step Electrochemical Semi-Exfoliated S-Doped Graphene-Like Structures from Commercial Carbon Fiber as Efficient Metal-Free Catalyst for Hydrogen Evolution Reaction. 2022, 9, Numerical modeling of hydrogen catalytic reactions over a circular bluff body. <i>International Journal</i>	6. ₇	5 O
645 644 643	The magnetically separable Pd/C3N4/Fe3O4 nanocomposite as a bifunctional photocatalyst for tetracycline degradation and hydrogen evolution. 2022, 641, 128404 Palladium Nanosheet-Based Dual Gas Sensors for Sensitive Room-Temperature Hydrogen and Carbon Monoxide Detection 2022, Single Step Electrochemical Semi-Exfoliated S-Doped Graphene-Like Structures from Commercial Carbon Fiber as Efficient Metal-Free Catalyst for Hydrogen Evolution Reaction. 2022, 9, Numerical modeling of hydrogen catalytic reactions over a circular bluff body. International Journal of Hydrogen Energy, 2022, Modeling and simulation of steam methane reforming and methane combustion over continuous and segmented catalyst beds in autothermal reactor. International Journal of Hydrogen Energy,	ĺ	5 0
645 644 643 642	The magnetically separable Pd/C3N4/Fe3O4 nanocomposite as a bifunctional photocatalyst for tetracycline degradation and hydrogen evolution. 2022, 641, 128404 Palladium Nanosheet-Based Dual Gas Sensors for Sensitive Room-Temperature Hydrogen and Carbon Monoxide Detection 2022, Single Step Electrochemical Semi-Exfoliated S-Doped Graphene-Like Structures from Commercial Carbon Fiber as Efficient Metal-Free Catalyst for Hydrogen Evolution Reaction. 2022, 9, Numerical modeling of hydrogen catalytic reactions over a circular bluff body. International Journal of Hydrogen Energy, 2022, Modeling and simulation of steam methane reforming and methane combustion over continuous and segmented catalyst beds in autothermal reactor. International Journal of Hydrogen Energy, 2022, 47, 9127-9138 Recent advances in nanostructured nonoxide materialsBorides, borates, chalcogenides,	ĺ	5 O O

637	Hydrogen Sorption and Rehydrogenation Properties of NaMgH3. 2022 , 12, 205		О
636	Heavy-duty hybrid transportation systems: Demonstration and case studies. 2022 , 337-372		
635	Catalyzed LiBH4 Hydrogen Storage System with In Situ Introduced Li3BO3 and V for Enhanced Dehydrogenation and Hydrogenation Kinetics as Well as High Cycling Stability. 2022 , 5, 1226-1234		1
634	Performance efficiency comparison of microbial electrolysis cells for sustainable production of biohydrogenA comprehensive review.		1
633	Tin carbide monolayers decorated with alkali metal atoms for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
632	Optimal control strategy for solid oxide fuel cell-based hybrid energy system using deep reinforcement learning.		1
631	The construction of a highly efficient p-n heterojunction Bi2O3/BiVO4 for hydrogen evolution through solar water splitting. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 4594-4600	6.7	4
630	Design and performance evaluation of a prototype hydrogen generator employing hydrolysis of aluminum waste. 1		O
629	Highly Sensitive H2 Sensors Based on Co3O4/PEI-CNTs at Room Temperature. 2022, 2022, 1-8		
628	Effect of ternary transition metal sulfide FeNi2S4 on hydrogen storage performance of MgH2. 2022 ,		3
627	Carbon abatement cost of hydrogen based synthetic fuels IA general framework exemplarily applied to the maritime sector. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 3515-3531	6.7	1
626	Making more with less: confinement effects for more sustainable chemical transformations.		2
625	On the long-term cyclic stability of near-eutectic MgMg2Ni alloys. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 3939-3947	6.7	2
624	Study on hydrogen storage property of (ZrTiVFe)xAly high-entropy alloys by modifying Al content. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 8409-8418	6.7	1
623	Review on materials applied in electric transmission conductors. 2022 , 57, 1581-1598		0
622	Sustainable hydrogen society IVision, findings and development of a hydrogen economy using the example of Austria. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 2059-2079	6.7	5
621	Fuel filling time estimation for hydrogen-powered fuel cell electric vehicle at different initial conditions using dynamic simulation. 1		0
620	Enhancing proton conductivity in Zr-MOFs through tuning metal cluster connectivity. 2022 , 10, 1236-12	240	5

619	Facile construction of self-assembled Cu@polyaniline nanocomposite as an efficient noble-metal free cocatalyst for boosting photocatalytic hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 6011-6028	6.7	1
618	Synthesis of potential nanostructures based on strontium hexaferrite for electrochemical hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 5372-5379	6.7	O
617	Strategies on energy loss reduction from high-temperature steam for stable hydrogen production using solid-recovered fuel.		1
616	Catalytic hydrolysis of NaBH4 over titanate nanotube supported Co for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 5260-5268	6.7	2
615	The role of effectiveness factor on the modeling of methanol steam reforming over CuO/ZnO/Al2O3 catalyst in a multi-tubular reactor. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 8700-8715	6.7	0
614	Theoretical studies on the proton dissociation and degradation of sulfonated polyethylene electrolyte membrane. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 5553-5563	6.7	
613	MOFs in photoelectrochemical water splitting: New horizons and challenges. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 5192-5210	6.7	4
612	Dehydrogenation of Homocyclic Liquid Organic Hydrogen Carriers (LOHCs) Over Pt Supported on an Ordered Pore Structure of 3-D Cubic Mesoporous KIT-6 Silica. 2022 , 121169		2
611	Study on the difference of dispersion behavior between hydrogen and methane in utility tunnel. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 8130-8144	6.7	1
610	Recent insights on iron based nanostructured electrocatalyst and current status of proton exchange membrane fuel cell for sustainable transport. 2022 ,		2
609	Hybridized off-grid fuel cell/wind/solar PV /battery for energy generation in a small household: A multi-criteria perspective. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 6437-6452	6.7	4
608	Magic of Hydrogen Spillover: Understanding and Application. 2022,		6
607	A Critical Review of Renewable Hydrogen Production Methods: Factors Affecting Their Scale-Up and Its Role in Future Energy Generation 2022 , 12,		11
606	Development of cobalt catalyst supported on MgOIIn2O3 (Ln = La, Nd, Eu) mixed oxide systems for ammonia synthesis. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 6666-6678	6.7	5
605	Comparative analysis on similarities and differences of hydrogen energy development in the World's top 4 largest economies: A novel framework. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 9485-9503	6.7	4
604	Optimisation-based system designs for deep offshore wind farms including power to gas technologies. 2022 , 310, 118540		O
603	Hydrogen production from the WindFloat Atlantic offshore wind farm: A techno-economic analysis. 2022 , 310, 118481		3
602	Exploring distributed energy generation for sustainable development: A data mining approach. 2022 , 48, 104018		2

601	Graphene quantum dots: A contemporary perspective on scope, opportunities, and sustainability. 2022 , 157, 111993		6
600	A design methodology of large-scale metal hydride reactor based on schematization for hydrogen storage. 2022 , 49, 104047		O
599	A critical review on the two-stage biohythane production and its viability as a renewable fuel. 2022 , 317, 123449		1
598	The flame mitigation effect of vertical barrier wall in hydrogen refueling stations. 2022 , 315, 123265		1
597	Transition metal and nitrogen-doped mesoporous carbons as cathode catalysts for anion-exchange membrane fuel cells. 2022 , 306, 121113		6
596	A Miniaturized Planar Solid Oxide Fuel Cell Based on Stainless Steel Microfluidic Channels. 2022 ,		
595	Dehydrogenation of formic acid using iridium-NSi species as catalyst precursors 2022,		2
594	Dehydrogenative ester synthesis from enol ethers and water with a ruthenium complex catalyzing two reactions in synergy 2022 , 24, 1481-1487		3
593	Hydrogen Encapsulation and Storage as an Alternative Energy Source. 2022, 265-287		
592	???????????/????? 2022,		O
592 591	?????????/????. 2022, Multifunctional reduced graphene oxide film as electrocatalysts and photothermal layer for broad spectrum solar-enhanced oxygen evolution reaction. 2022, 100966		0
	Multifunctional reduced graphene oxide film as electrocatalysts and photothermal layer for broad		
591	Multifunctional reduced graphene oxide film as electrocatalysts and photothermal layer for broad spectrum solar-enhanced oxygen evolution reaction. 2022 , 100966 Small-Pore Zeolite Membranes: A Review of Gas Separation Applications and Membrane	6.7	1
591 590	Multifunctional reduced graphene oxide film as electrocatalysts and photothermal layer for broad spectrum solar-enhanced oxygen evolution reaction. 2022 , 100966 Small-Pore Zeolite Membranes: A Review of Gas Separation Applications and Membrane Preparation. 2022 , 9, 47 Bibliometric analysis of the research on hydrogen economy: An analysis of current findings and	6.7	0
591 590 589	Multifunctional reduced graphene oxide film as electrocatalysts and photothermal layer for broad spectrum solar-enhanced oxygen evolution reaction. 2022, 100966 Small-Pore Zeolite Membranes: A Review of Gas Separation Applications and Membrane Preparation. 2022, 9, 47 Bibliometric analysis of the research on hydrogen economy: An analysis of current findings and roadmap ahead. <i>International Journal of Hydrogen Energy</i> , 2022, Environmental and economic assessment of hydrogen compression with the metal hydride	ŕ	1 0
591 590 589 588	Multifunctional reduced graphene oxide film as electrocatalysts and photothermal layer for broad spectrum solar-enhanced oxygen evolution reaction. 2022, 100966 Small-Pore Zeolite Membranes: A Review of Gas Separation Applications and Membrane Preparation. 2022, 9, 47 Bibliometric analysis of the research on hydrogen economy: An analysis of current findings and roadmap ahead. International Journal of Hydrogen Energy, 2022, Environmental and economic assessment of hydrogen compression with the metal hydride technology. International Journal of Hydrogen Energy, 2022,	ŕ	1 0 1
591 590 589 588	Multifunctional reduced graphene oxide film as electrocatalysts and photothermal layer for broad spectrum solar-enhanced oxygen evolution reaction. 2022, 100966 Small-Pore Zeolite Membranes: A Review of Gas Separation Applications and Membrane Preparation. 2022, 9, 47 Bibliometric analysis of the research on hydrogen economy: An analysis of current findings and roadmap ahead. International Journal of Hydrogen Energy, 2022, Environmental and economic assessment of hydrogen compression with the metal hydride technology. International Journal of Hydrogen Energy, 2022, Construction of carbon covered Mg2NiH4 nanocrystalline for hydrogen storage. 2022, 905, 164169 Y decorated all-boron B38 nanocluster for reversible molecular hydrogen storage: A first-principles	6.7	1 0 1 0 0 0

583	Hybrid hydrate processes for CO2/H2 mixture purification: A techno-economic analysis. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	О
582	The characteristics of flame propagation in hydrogen/oxygen mixtures. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 10069-10069	6.7	О
581	in-situ formed Pt nano-clusters serving as destabilization-catalysis bi-functional additive for MgH2. 2022 , 435, 135050		1
580	Sustainable hydrogen production: Technological advancements and economic analysis. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	4
579	Surface DielsAlder adducts on multilayer graphene for the generation of edge-enriched single-atom FeN4 sites for ORR and OER electrocatalysis. 2022 , 6, 1603-1615		О
578	Economic Feasibility Assessment of Using Ammonia for Hydrogen Transportation. 2022, 89-98		
577	Synergistic Interface Engineering and Structural Optimization of Non-Noble Metal Telluride-Nitride Electrocatalysts for Sustainably Overall Seawater Electrolysis.		
576	Hydrogen Fuel: Clean Energy Production Technologies. 2022 , 133-154		О
575	Electrochemical Properties of Lafeo3 Coated with C/Ni as a New Anode Material for Nickel-Hydrogen Batteries.		
574	Synthesis of P-doped NiS as an electrode material for supercapacitors with enhanced rate capability and cycling stability. 2022 , 46, 6461-6469		О
573	Analysis of Energy Transition Pertaining to the Future Energy Systems. 2022, 1-21		
572	Catalyze Hydrolysis Reaction for Hydrogen Generation by Mg/Mg2ca Nanolamellar Structure in Mg[Ia Alloys.		
571	Sustainability and sustainable energy. 2022 , 107-132		1
570	Development of an Ammonia Decomposition Unit. 2022 , 205-216		
569	Diffusion transport characteristic of carbon monoxide within calcium sulfate slit in chemical looping hydrogen production: Molecular dynamics simulation. <i>International Journal of Hydrogen Energy</i> ,	6.7	O
	2022,	0./	
568		0.7	O
568 567	Design and multiobjective optimization of membrane steam methane reformer: A computational	0.7	0

565	Green hydrogen standard in China: Standard and evaluation of low-carbon hydrogen, clean hydrogen, and renewable hydrogen. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	4
564	Toward a Fundamental Understanding of Geological Hydrogen Storage. 2022 , 61, 3233-3253		10
563	Biohydrogen production from real industrial wastewater: Potential bioreactors, challenges in commercialization and future directions. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
562	Hydroxyl-Decorated Diiron Complex as a [FeFe]-Hydrogenase Active Site Model Complex: Light-Driven Photocatalytic Activity and Heterogenization on Ethylene-Bridged Periodic Mesoporous Organosilica. 2022 , 12, 254		O
561	Highly efficient catalytic derived synthesis process of carbon aerogel for hydrogen storage application. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	O
560	Complex Metal Borohydrides: From Laboratory Oddities to Prime Candidates in Energy Storage Applications 2022 , 15,		O
559	Superior Dehydrogenation Performance of 🖽 Latalyzed by Li N: Realizing 8.0 wt.% Capacity at 100 °C 2022 , e2107983		О
558	Design, modeling and optimization of a renewable-based system for power generation and hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	О
557	Catalytic effect of Al2TiO5 on the dehydrogenation properties of LiAlH4. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
556	Advances in catalysts for hydrogen production by methanolysis of sodium borohydride. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
555	Dislocations, texture and stress development in hydrogen-cycled Pd thin films: An in-situ X-ray diffraction study. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 12119-12134	6.7	
554	Effect of hydrogen ion dose and sample temperature on hydrogenation of Mg oxides using microwave excited hydrogen plasma.		
553	Stability of the H-cluster under whole-cell conditions-formation of an H-like state and its reactivity towards oxygen 2022 , 27, 345		О
552	Hydrogen production via aqueous-phase reforming for high-temperature proton exchange membrane fuel cells - a review. 1, 81		O
551	Ni3Mo3N coupled with nitrogen-rich carbon microspheres as an efficient hydrogen evolution reaction catalyst and electrochemical sensor for H2O2 detection. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
550	Understanding Hydrogenation Chemistry at MgB Reactive Edges from Molecular Dynamics 2022,		2
549	Numerical study on the behavior and design of a novel multistage hydrogen pressure-reducing valve. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	0
548	Nanomaterials enhancing the solid-state storage and decomposition of ammonia 2022,		O

547	Challenges and Opportunities of Ru-Based Catalysts toward the Synthesis and Utilization of Ammonia. 2022 , 12, 3938-3954		3
546	El hidrgeno verde en la Uniti Europea: una vil necesaria para la transicifi energilica. 2022 , 13-33		O
545	Phase Change Cooling of a Metal Hydride Reactor for Rapid Hydrogen Absorption. 2022 , 15, 2490		О
544	Real-time microscopic monitoring of temperature and strain on the surface of magnesium hydrogen storage tank by high temperature resistant flexible integrated microsensor. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 12815-12821	6.7	O
543	Ethanol adsorption on Ni doped Mo2C(001): a theoretical study. 1		1
542	Hydrogen technology for supply chain sustainability: The Mexican transportation impacts on society. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	Ο
541	On the long-term stability of Pd-membranes with TiO2 intermediate layers for H2 purification. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 11402-11416	6.7	2
540	Enhanced hydrogen storage and superior capacitive performances of ball milled PMMA/h-BN coreBhell nanocomposite. 1		O
539	Ultrathin Palladium Nanowires for Fast and Hysteresis-Free H2 Sensing.		3
538	Exploration of waste-generated nanocomposites as energy-driven systems for various methods of hydrogen production; A review. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
537	Rhodium(0) nano particles within an organic cage with better durability and gated activity for hydrogen generation reaction. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
536	MATLAB/Simulink simulation of low-pressure PEM electrolyzer stack. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	2
535	Hydrogen energy storage integrated hybrid renewable energy systems: A review analysis for future research directions. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	6
534	Advanced heterolytic H2 adsorption of K-added Ru/MgO catalysts for accelerating hydrogen storage into aromatic benzyltoluenes. 2022 ,		Ο
533	Hydrogen sorption behaviour of Mg-5wt.%La alloys after the initial hydrogen absorption process. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
532	Carbon-based sorbents for hydrogen storage: A state of the art on challenges and their sustainability at operating conditions for renewable energy 2022 ,		O
531	Techno-economic feasibility of distributed waste-to-hydrogen systems to support green transport in Glasgow. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 13532-13551	6.7	O
530	Improving hydrogen generation from dehydrogenation of dimethylamine borane using polyvinylpyrrolidone stabilized platinum-rhodium nanoclusters as highly efficient and reusable catalysts: Development of ANN model. 2022 ,		O

529	Photoelectrochemical Oxidation of Amines to Imines and Production of Hydrogen through Mo-Doped BiVO Photoanode 2022 , 7, 12816-12824	0
528	Techno-economic analysis and Monte Carlo simulation of green hydrogen production technology through various water electrolysis technologies. 2022 , 258, 115499	1
527	Recent progress on hydrogen generation from the hydrolysis of light metals and hydrides. 2022, 164831	5
526	Spray-dried composite microparticles of polyetherimide and LaNi5 as a versatile material for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , 2022 ,	O
525	Molten carbonate fuel cells for simultaneous CO2 capture, power generation, and H2 generation. 2022 , 313, 118553	0
524	Hydrogen accommodation in the TiZrNbHfTa high entropy alloy. 2022 , 229, 117832	1
523	Investigating emerging hydrogen technology topics and comparing national level technological focus: Patent analysis using a structural topic model. 2022 , 313, 118898	3
522	A multiphysics model of the compactly-assembled industrial alkaline water electrolysis cell. 2022 , 314, 118987	O
521	Fabrication and hydrogen permeation resistance of dense CrN coatings. 2022, 437, 128326	1
520	Portable proton exchange membrane fuel cell using polyoxometalates as multi-functional hydrogen carrier. 2022 , 313, 118781	O
519	Environmental and economical assessment of high-value utilization routes for coke oven gas in China. 2022 , 353, 131668	0
518	Aqueous-phase reforming of glycerol over Pt-Co catalyst: Effect of process variables. 2022 , 10, 107402	2
517	High-performance long-term driving proton exchange membrane fuel cell implemented with chemically ordered Pt-based alloy catalyst at ultra-low Pt loading. 2022 , 533, 231378	1
516	Effect of internal degrees of freedom in rarefied gas problems: Plane Couette flow. 2022 , 190, 122759	
515	Significantly improved hydrogen storage properties of Mg90Al10 catalyzed by TiF3. 2022 , 908, 164581	0
514	A comprehensive review of the mechanisms and efficiency of underground hydrogen storage. 2022 , 51, 104490	2
513	A universal, green, and self-reliant electrolytic approach to high-entropy layered (oxy)hydroxide nanosheets for efficient electrocatalytic water oxidation 2022 , 617, 500-510	0
512	Development of electrolysis technologies for hydrogen production: A case study of green steel manufacturing in the Russian Federation. 2022 , 27, 102517	2

511	Techno-economic assessment of clean hydrogen production and storage using hybrid renewable energy system of PV/Wind under different climatic conditions. 2022 , 52, 102195		5
510	Towards a sustainable energy future: Factors affecting solar-hydrogen energy production in China. 2022 , 52, 102059		3
509	Mn nanoparticles enhanced dehydrogenation and hydrogenation kinetics of MgH2 for hydrogen storage. 2021 , 31, 3469-3477		4
508	Scalability of Flame Propagation in a Channel. 2021 , 15, 984-988		1
507	Nickel modified dolomite in the hydrogen generation from sodium borohydride hydrolysis. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	3
506	Ca functionalized N-doped porphyrin-like porous C as an efficient material for storage of molecular hydrogen 2021 , 28, 20		1
505	Resistivity Testing of Palladium Dilution Limits in CoPd Alloys for Hydrogen Storage 2021, 15,		
504	Heat-Induced Dry Hydrolysis of Sodium Borohydride/Oxalic Acid Dihydrate Composite for Hydrogen Production 2022 , 7, 979-986		
503	A review on hydrogen production and utilization: Challenges and opportunities. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	20
502	Effect of B-site Al substitution on hydrogen production of La0.4Sr0.6Mn1-xAlx (x=0.4, 0.5 and 0.6) perovskite oxides. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	O
502		6.7	О
	perovskite oxides. International Journal of Hydrogen Energy, 2021 ,	6.7	0
501	perovskite oxides. <i>International Journal of Hydrogen Energy</i> , 2021 , References. 2021 , 317-358	6.7	
501	perovskite oxides. <i>International Journal of Hydrogen Energy</i> , 2021 , References. 2021 , 317-358 Hydrogen Sorption Behavior of Cast Ag-Mg Alloys 2021 , 15,	6.7	1
501 500 499	perovskite oxides. <i>International Journal of Hydrogen Energy</i> , 2021 , References. 2021 , 317-358 Hydrogen Sorption Behavior of Cast Ag-Mg Alloys 2021 , 15, A Review on Advanced Manufacturing for Hydrogen Storage Applications. 2021 , 14, 8513 Prediction of the monthly cost of energy usage by PEMFC at housing in North Sumatra Province,	6.7	1
501 500 499 498	perovskite oxides. <i>International Journal of Hydrogen Energy</i> , 2021 , References. 2021 , 317-358 Hydrogen Sorption Behavior of Cast Ag-Mg Alloys 2021 , 15, A Review on Advanced Manufacturing for Hydrogen Storage Applications. 2021 , 14, 8513 Prediction of the monthly cost of energy usage by PEMFC at housing in North Sumatra Province, Indonesia. 2021 , 927, 012035 Hydrogen as a Clean and Sustainable Energy Vector for Global Transition from Fossil-Based to	6.7	2
501 500 499 498 497	Perovskite oxides. International Journal of Hydrogen Energy, 2021, References. 2021, 317-358 Hydrogen Sorption Behavior of Cast Ag-Mg Alloys 2021, 15, A Review on Advanced Manufacturing for Hydrogen Storage Applications. 2021, 14, 8513 Prediction of the monthly cost of energy usage by PEMFC at housing in North Sumatra Province, Indonesia. 2021, 927, 012035 Hydrogen as a Clean and Sustainable Energy Vector for Global Transition from Fossil-Based to Zero-Carbon. 2021, 3, 881-909 Computational Fluid Dynamics Simulation and Energy Consumption Analysis of Metal Hydride in Its	6.7	2

493	Hydrogen Liquefaction: A Review of the Fundamental Physics, Engineering Practice and Future Opportunities.		3
492	Supraparticles for Bare-Eye H 2 Indication and Monitoring: Design, Working Principle, and Molecular Mobility. 2112379		3
491	Chinal energy transitions for carbon neutrality: challenges and opportunities. 2022, 1, 1		3
490	Hydrogen production via photoreforming of wastewater under LED light-driven over CuO@exfoliated g-CN nanoheterojunction 2022 , 301, 134649		О
489	Augmented hydrogen adsorption on metal (Mg, Mn) doped phase TeO2: A DFT investigation. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	О
488	Effect of Y partially substituting La on the phase structure and hydrogen storage property of LaMgNi alloys. 2022, 110744		О
487	Design and analysis of an efficient hydrogen liquefaction process based on helium reverse Brayton cycle integrating with steam methane reforming and liquefied natural gas cold energy utilization. 2022 , 124047		1
486	An integrated computational and experimental method for predicting hydrogen plateau pressures of TiFe1-xMx-based room temperature hydrides. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	O
485	Recent Evolutionary Trends in the Production of Biofuels. 2022,		О
484	Absorption based solid state hydrogen storage system: A review. 2022 , 52, 102204		1
483	Hydrogen Utilisation via Ammonia Borane Dehydrogenation and Regeneration: A Review. 2022 , 651-6	69	
482	An Improved Max-min Game Theory Control of Fuel Cell and Battery Hybrid Energy System Against System Uncertainty. 2022 , 1-1		O
481	Decentralized P2P Energy Trading of Multiple Microgrids with Hydrogen Refueling Stations. 2022,		
480	Partial substitution of the Mn atoms in CaMnO3 by first row transition metal atoms: effect on oxygen vacancy formation. 2022 ,		2
479	Hydrogen production in Mexico: State of the art, future perspectives, challenges, and opportunities. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	0
478	Carbon nitride photoelectrode prepared via a combined strategy of electrophoresis and vapor deposition. 1-7		O
477	Automatic high-pressure H2 generation up to 40′MPa through HCO3/ICO32lenhanced AlH2O reaction. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	
476	Hydrogen strategy in decarbonization era: Egypt as a case study. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	O

475	Microstructure and hydrogen storage properties of Ti☑Mn alloy with Zr, Ni, and Zr7Ni10 addition. 1		0
474	Clean hydrogen for mobility Quo vadis?. International Journal of Hydrogen Energy, 2022,	6.7	2
473	From Iron to Copper: The Effect of Transition Metal Catalysts on the Hydrogen Storage Properties of Nanoconfined LiBH in a Graphene-Rich N-Doped Matrix 2022 , 27,		
472	Molecular hydrogen from organic sources in the deep Songliao Basin, P.R. China. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 16750-16774	6.7	1
471	Hydrogen generation from methanolysis of sodium borohydride using waste coffee oil modified zinc oxide nanoparticles and their photocatalytic activities. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
470	Factors affecting the cathode/electrolyte interfacial pH change during water reduction: A simulation study. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	2
469	Improved charge transfer and morphology on Ti-modified Cu/EAl2O3/Al catalyst enhance the activity for methanol steam reforming. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	О
468	Catalytical enhancement on hydrogen production from LiAlH4 by Fe E e2O3 addition. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 16964-16977	6.7	1
467	Density functional theoretical analysis of micro-adsorption of isotopes of hydrogen molecule and atom by uranium. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	O
466	Towards net-zero smart system: An power synergy management approach of hydrogen and battery hybrid system with hydrogen safety consideration. 2022 , 263, 115717		1
465	Solar light driven photoelectrochemical water splitting using Mn-doped CdS quantum dots sensitized hierarchical rosette-rod TiO2 photoanodes. 2022 , 916, 116384		О
464	Highly active platinum single-atom catalyst grafted onto 3D carbon cloth support for the electrocatalytic hydrogen evolution reaction. 2022 , 595, 153480		2
463	Boosting the oxygen evolution reaction performance of wrinkled Mn(OH)2 via conductive activation with a carbon binder. 2022 , 71, 580-587		1
462	Synergetic photocatalytic and thermocatalytic aqueous phase reforming of methanol for hydrogen production based on noble metal/photosensitive supports catalysts. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	2
461	Updated Perceptions on Polymer-Based Enhanced Oil Recovery Toward High-Temperature High-Salinity Tolerance for Successful Field Applications in Carbonate Reservoirs. 2022 , 14, 2001		1
460	Wet-air co-electrolysis in high-temperature solid oxide electrolysis cell for production of ammonia feedstock. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	
459	Pumped Storage Hydropower for Sustainable and Low-Carbon Electricity Grids in Pacific Rim Economies. 2022 , 15, 3139		О
458	Ultralow loading FeCoNi alloy nanoparticles decorated carbon mat for hydrogen peroxide reduction reaction and its application in direct ethylene glycol fuel cells.		O

457	Co-Fe-P Nanosheet Arrays as a Highly Synergistic and Efficient Electrocatalyst for Oxygen Evolution Reaction 2022 ,		2
456	NiFe layered double hydroxide nanosheet arrays for efficient oxygen evolution reaction in alkaline media. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	2
455	Fast, Sensitive, and Highly Selective Room-Temperature Hydrogen Sensing of Defect-Rich Orthorhombic Nb2O5☑ Nanobelts with an Abnormal p-Type Sensor Response.		О
454	A review on distributed generation impacts on electric power system. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	2
453	Impact of different metallic forms of nickel on hydrogen evolution reaction. 2022, 218, 114829		
452	Formic Acid Dehydrogenation Over Pd Single Atom or Cluster Supported on Nitrogen-Doped Graphene: A Dft Study.		
451	Powering Aquaculture Operations at Sea: Can Hydrogen Be a Sustainable Solution?.		
45 ⁰	An Engineered Electrocatalyst of Superhydrophilic/Superaerophobic Composed of the Stainless-Steel Supported Zinc Doped Nickel Cobalt Oxides Towards Energy-Saving Hydrogen Production Via Hydrazine Oxidation in Alkaline Electrolyte.		
449	Hydrogen Generation from CO2 Reforming of Biomass-Derived Methanol on Ni/SiO2 Catalyst.		
448	Impact of renewable generation unit on stability of power systems. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 19947-19954	6.7	O
447	Hydrogen production via sodium borohydride hydrolysis catalyzed by cobalt ferrite anchored nitrogen-and sulfur co-doped graphene hybrid nanocatalyst: Artificial neural network modeling approach. 2022 ,		1
446	An Improved Solar Cooling System for Date Safety and Storage under Climate of the Maghreb. 2022 , 2022, 1-14		
445	Catching the hydrogen train: economics-driven green hydrogen adoption potential in the United Arab Emirates. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	2
444	Evaluation of cut cell cartesian method for simulation of a hook and claw type hydrogen pump. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	O
443	Bimetallic Boron Phosphide Ni-2Fe-BP as an Active Water-Splitting Catalyst. 2022 , 7,		О
442	Constructing graphene nanosheet-supported FeOOH nanodots for hydrogen storage of MgH2. 2022 , 29, 1464-1473		4
441	Recent advances of MoO3 based materials in energy catalysis: Applications in hydrogen evolution and oxygen evolution reactions. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 20475-20493	6.7	1
440	Development of a turbocharged direct-injection hydrogen engine to achieve clean, efficient, and high-power performance. 2022 , 324, 124713		2

439	Significantly improved hydrogen storage behaviors in MgH2 with Nb nanocatalyst. 2022 , 29, 1788-1797	4
438	Role of Electrocatalysts in Water Electrolysis. 2022 , 1-32	
437	Band Bending Induced Charge Redistribution on the Amorphous Mil-53(Al)/Co-Ldh Conjunction to Boost the Supercapacitive and Oxygen Evolution Performance.	
436	Insights on hydrogen spillover on carbonaceous supports.	O
435	Chapter 10. Nanotechnology Research for Alternative Renewable Energy. 2022, 277-298	
434	Boron Nitride Supported Nickel Nanoparticles as Catalyst for Enhancing the Hydrogen Storage Properties of Mgh2.	
433	A stakeholder impact analysis of the production of the energy vector hydrogen. 2022, 231-247	
432	?????????. 2022,	
431	Applying blockchain technology in the corporate bond model for default risk assessment under the marketization principle.	
430	Stone Fruit Seed: A Source of Renewable Fuel for Transport. 2022 , 15, 4667	O
429	Accurate quantification of ultra-trace sulfur compounds in hydrogen by integrating fill-less trap pre-concentration with gas chromatograph and sulfur chemiluminescence detector. <i>International Journal of Hydrogen Energy</i> , 2022 ,	
428	H2 rich gas production from agricultural waste mixture over Ni/kaolin and Ni/bentonite catalyst by gasification. <i>International Journal of Hydrogen Energy</i> , 2022 ,	0
427	Ligand-Centered Hydrogen Evolution with Ni(II) and Pd(II)DMTH.	1
426	Exploring Technological Solutions for Onboard Hydrogen Storage Systems Through a Heterogeneous Knowledge Network: From Current State to Future Research Opportunities. 10,	2
425	Ammonia borane methanolysis for hydrogen evolution on Cu3Mo2O9/NiMoO4 hollow microspheres. 2022 , 137755	2
424	Hydrogen Storage Properties of a New Ti-V-Cr-Zr-Nb High Entropy Alloy. 2022 , 3, 270-284	O
423	Performance analysis of LaNi5 added with expanded natural graphite for hydrogen storage system. International Journal of Hydrogen Energy, 2022, 6.7	1
422	Mechanism of interlayer spacing on catalytic properties of MoS2 from ab-initio calculation. 2022 , 154041	2

421	Thermodynamic modeling of Cr and CrH systems up to high temperatures and high pressures. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	
420	Relative Permeability of Hydrogen and Aqueous Brines in Sandstones and Carbonates at Reservoir Conditions. 2022 , 49,		2
419	Synthesis and analysis of TiO2 nanotubes by electrochemical anodization and machine learning method for hydrogen sensors. 2022 , 111834		О
418	Impact of Hydrothermally Prepared Support on the Catalytic Properties of CuCe Oxide for Preferential CO Oxidation Reaction. 2022 , 12, 674		O
417	Experimental research on hydrogen/air explosion inhibition by the ultrafine water mist. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
416	Enhanced hydrogen gas adsorption properties of B, N, and Au co-doped graphene in o-, m-, and p-configurations: DFT study. 2022 , 127, 109173		О
415	A computational study of CH4 storage on Sc functionalized C48B12 heterofullerene. 2022 , 802, 139751		О
414	New design and performance evaluation of 1 kW-class reversible solid oxide electrolysis-fuel cell stack using flat-tubular cells. 2022 , 542, 231744		O
413	Catalyze hydrolysis reaction for hydrogen generation by Mg/Mg2Ca nanolamellar structure in Mgfa alloys. 2022 , 919, 165767		О
412	Optimal control strategy of the turbocharged direct-injection hydrogen engine to achieve near-zero emissions with large power and high brake thermal efficiency. 2022 , 325, 124913		O
411	Energy Cooperation for Wind Farm and Hydrogen Refueling Stations: A RO-Based and Nash-Harsanyi Bargaining Solution. 2022 , 1-12		O
410	Biohydrogen: Future Energy Source for the Society. 2022 , 271-288		
409	Hydrogen Generation from Methanol Steam Reforming Process of Cucro2-Ceo2 Nanopowders Catalyst.		
408	Estimation of Hydrogen Production from Biomass Pyrolysis for Energy Systems by Using Machine Learning Techniques.		
407	The Role of the Carbon Carrier in the Formation of Active Surface Phases in Pt-Containing Catalysts for Bicyclohexyl Dehydrogenation.		
406	Day-ahead Economic Coordination and Dispatch Strategy of Integrated Energy System Facing Multiple Uncertainties. 2022 ,		
405	Intelligent energy management of low carbon hybrid energy system with solid oxide fuel cell and accurate battery model.		
404	Recent Development in Nanoconfined Hydrides for Energy Storage. 2022 , 23, 7111		1

403	Techno-economic assessment of hydrogen pipe storage in decommissioned wellbores sourced from surplus renewable electricity. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 23710-23720	6.7	
402	In-situ generate robust Felli derived nano-catalyst featuring surface reconstruction for enhanced oxygen evolution reaction. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	O
401	Researching and adjusting the modes of joint operation of a photoelectric converter and a high pressure electrolyzer. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	O
400	Thermodynamic Analysis of Hydrogen Utilization as Alternative Fuel in Cement Production. 2022,		
399	Grid-Grade Rechargeable Batterie and Predication in Future. 3, 63-72		
398	Hydrogen storage properties of Li-, Sc-, Ti-decorated Egraphene: A DFT study.		
397	Hydrogen Fuel for Future Mobility: Challenges and Future Aspects. 2022 , 14, 8285		2
396	Reversible hydrogen adsorption in Ti-functionalized porous holey graphyne: Insights from first-principles calculation.		O
395	Damage Characterization of Carbon Fiber Composite Pressure Vessels Based on Modal Acoustic Emission. 2022 , 15, 4783		О
394	Hydrogen permeability in subsurface. International Journal of Hydrogen Energy, 2022,	6.7	O
393	Hydrogen in the Portuguese Navy: A case study. International Journal of Hydrogen Energy, 2022,	6.7	О
392	Energy storage systems: A review. 2022 ,		8
391	Microseismic Monitoring and Analysis Using Cutting-Edge Technology: A Key Enabler for Reservoir Characterization. 2022 , 14, 3417		1
390	Application-oriented hydrolysis reaction system of solid-state hydrogen storage materials for high energy density target: A review. 2022 ,		3
389	MetalBrganic framework-derived Co@NMPC as efficient electrocatalyst for hydrogen evolution reaction: Revealing the synergic effect of pyridinic NLO. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	O
388	Hydrogen energy production, storage methods, and applications for power generation. 3, 113-122		
- 0	Controlling the selectivity of solar O ₂ /HClO production from seawater by		
387	simple surface modification of visible-light responsible photoelectrodes. 2022 , 130, 395-402		

385	A comprehensive review of the prospects for future hydrogen storage in materials-application and outstanding issues.	O
384	Mechanically processing copper plate into active catalyst for electrochemical hydrogen production. 2022 , 237, 118164	
383	Hydrogen storage methods: Review and current status. 2022 , 167, 112743	11
382	Zeolitic ice: A route toward net zero emissions. 2022 , 168, 112768	О
381	Synergistic effect of physico-chemical properties and reaction temperature on the gasification of coal-waste activated carbon-slurry coke for H2 production. 2022 , 327, 125076	0
380	A novel dual-functional epoxy-based composite coating with exceptional anti-corrosion and enhanced hydrogen gas barrier properties. 2022 , 449, 137876	О
379	Statistical Analysis of Demonstration Operation for Fuel Cell Vehicle. 2021,	
378	Optimization of Liquid Organic Hydrogen Carrier (LOHC) dehydrogenation system. <i>International Journal of Hydrogen Energy</i> , 2022 ,	О
377	Ammonia Decomposition in the Process Chain for a Renewable Hydrogen Supply.	О
376	Technological Solutions in the Field of Production and Use of Hydrogen Fuel to Increase the Thermal Efficiency of Steam Turbine TPPs. 2022 , 7, 63	О
375	Hydrogen in pipeline steels: Recent advances in characterization and embrittlement mitigation. 2022 , 104709	2
374	Capping Ligand Initiated CuInS2 Quantum Dots Decoration on, ZnIn2S4 Microspheres Surface Under Different Alkalinity Levels Resulting in Different Hydrogen Evolution Performance. 2022 , 129760	О
373	Phase equilibrium in the hydrogen energy chain. 2022 , 328, 125324	6
372	Hydrogen Production and Separation in Fuel-Rich Operated Hcci Engine Polygeneration Systems: Exergoeconomic Analysis and Comparison between Pressure Swing Adsorption and Palladium Membrane Separation.	
371	In situ formed Mg(BH4)2 for improving hydrolysis properties of MgH2. 2022 ,	О
370	SUSTAINABLE HYDROGEN PRODUCTION TECHNOLOGIES: BIOMASS BASED APPROACHES.	
369	Effect of high compression ratio on improving thermal efficiency and NOx formation in jet plume controlled direct-injection near-zero emission hydrogen engines. 2022 ,	O
368	Potential hydrogen storage materials from Li decorated N-doped Me-graphene.	

367	Controllable reactivity tuned by the cooperativity in B/P and B/N intermolecular Frustrated Lewis Pairs.	
366	Design optimization of a magnesium-based metal hydride hydrogen energy storage system. 2022 , 12,	O
365	Selection criteria and ranking for sustainable hydrogen production options. 2022,	О
364	A critical review on integrated system design of solar thermochemical water-splitting cycle for hydrogen production. 2022 ,	2
363	Decomposition of Saccharides and Alcohols in Solution Plasma for Hydrogen Production. 2022 , 3, 333-347	
362	High-capacity hydrogen storage in yttrium-decorated Egraphene: Acumen from density functional theory. 2022 , 132, 065002	
361	Catalytic characteristics of titanium-(IV)-isopropoxide (TTIP) on de/re-hydrogenation of wet ball-milled MgH 2 / Mg.	1
360	Synthesis of novel activated carbon-supported trimetallic PtRuNi nanoparticles using wood chips as efficient catalysts for the hydrogen generation from NaBH4 and enhanced photodegradation on methylene blue. 2022,	O
359	Superconductivity and Hydrogen Economy: A Roadmap to Synergy. 2022, 15, 6138	1
358	Highly-dispersed Ni, N-doped Mo2C nanoparticles prepared from organic-derived polyoxomolybdates for efficient electrocatalytic hydrogen evolution. 2022 , 47, 28915-28923	Ο
357	Investigation on catalytic performance and desorption behaviors of ruthenium catalysts supported on rare-earth oxides for NH3 decomposition. 2022 ,	2
356	Hydrolysis of NH3BH3 by N-doped Graphene Quantum Dots Loaded Non-precious Bimetallic Nanoparticles (Co-Ni/N-GQDs) for Hydrogen Evolution.	O
355	Hydrogen adsorption with micro-structure deformation in nanoporous carbon under ultra-high pressure. 2022 ,	О
354	Hydrolysis H2 generation behavior of AM50 alloy waste coactivated by Mg-based master alloys. 2022 ,	Ο
353	Recent progress of nanotechnology in enhancing hydrogen storage performance of magnesium-based materials: A review. 2022 ,	1
352	First-principles study on the design of metal-decorated N-doped Egraphyne as a high capacity CH4 adsorbent. 2022 , 132, 065001	
351	In situ neutron diffraction of NaAlD4/carbon black composites during decomposition/deuteration cycles and the effect of carbon on phase segregation. 2022 ,	0
350	Dynamic modeling and characteristic analysis of natural gas network with hydrogen injections. 2022 ,	Ο

349	Evaluating interactive toxic impact of heavy metals and variations of microbial community during fermentative hydrogen production. 2022 ,	O
348	Computational evaluation of Ca-decorated nanoporous CN monolayers as high capacity and reversible hydrogen storage media. 2022 ,	О
347	Hydrogen economy in India: A status review.	
346	Effects of charging, strain, and doping on the interaction between H2 and nitrogen-rich Penta-CN2 sheet. 2022 ,	O
345	Hydrogen adsorption on Co2+ - and Ni2+- exchanged -US-Y and -ZSM-5. A combined sorption, DR UVIV is, synchrotron XRD and DFT study. 2022 ,	
344	Thermodynamics of the cyclic formate/bicarbonate interconversion for hydrogen storage. 2022,	o
343	20 K H2 Physisorption on Metal@rganic Frameworks with Enhanced Dormancy Compared to Liquid Hydrogen Storage.	0
342	Nanoparticle-enhanced hydrogen separation from CO2 in cylindrical and cubic microchannels: A 3D computational fluid dynamics simulation. 2022 ,	2
341	Analysis and recompilation of kinetic data about the hydrogen production by the catalytic decomposition of hydrous hydrazine. 2022 ,	0
340	Effect of Nanoparticle Addition to Biohydrogen Production via Dark Fermentation Process and Life Cycle Analysis Approach. 1426-1435	
339	Band bending induced charge redistribution on the amorphous MIL-53(Al)/Co-LDH conjunction to boost the supercapacitive and oxygen evolution performance. 2022 , 429, 141057	0
338	Hydrogen storage in saline aquifers: Opportunities and challenges. 2022 , 168, 112846	1
337	Hierarchical macro-mesoporous electrocatalysts with dual-active sites of Ru single atoms and monodispersed RuMo nanoclusters for efficient hydrogen evolution. 2022 , 26, 101046	
336	Synergistic interface engineering and structural optimization of non-noble metal telluride-nitride electrocatalysts for sustainably overall seawater electrolysis. 2022 , 318, 121834	4
335	Formic acid dehydrogenation over Pd single atom or cluster supported on nitrogen-doped graphene: A DFT study. 2022 , 604, 154510	1
334	Pressure-induced lattice-dynamical stability and superconductivity of ternary pentahydride MgNiH 5 .	O
333	Deactivation and in-situ regeneration of Dy-doped Ni/SiO2 catalyst in CO2 reforming of methanol. 2022 ,	O
332	Techno-Economic Analysis of Hydrogen Storage Technologies for Railway Engineering: A Review. 2022 , 15, 6467	O

331	A Comprehensive Review on Recent Advancements in Thermochemical Processes for Clean Hydrogen Production to Decarbonize the Energy Sector. 2022 , 14, 11206	7
330	Understanding the Behaviour of Real Metaborates in Solution.	O
329	The effect of the electric field intensity on the hydrogen storage of B/N-co-doped graphdiyne nanosheet. 2022 ,	0
328	Millisecond-timescale electrodeposition of platinum atom-doped molybdenum oxide as an efficient electrocatalyst for hydrogen evolution reaction. 2022 , 16,	О
327	Current trends in hydrogen production, storage and applications in India: A review. 2022 , 53, 102677	1
326	Sonochemical synthesized BaMoO4/ZnO nanocomposites as electrode materials: A comparative study on GO and GQD employed in hydrogen storage. 2022 , 90, 106167	o
325	Recent trends in MXenes hybrids as efficient 2D materials for photo- and electrocatalysis hydrogen production. 2022 , 26, 101108	0
324	Hydrogen generation from methanol steam reforming process of CuCrO2-CeO2 nanopowders catalyst. 2022 , 286, 115989	1
323	Redox-active ligands for chemical, electrochemical, and photochemical molecular conversions. 2022 , 473, 214804	1
322	Enhancing the synergism of Fe3O4 and Fe5C2 to improve the process of CO2 hydrogenation to olefines. 2022 , 654, 130145	o
321	Hydrogenation of N-ethylcarbazole with Hydrogen-Methane mixtures for hydrogen storage. 2023 , 331, 125920	O
320	Adoption of triply periodic minimal surface structure for effective metal hydride-based hydrogen storage. 2023 , 262, 125399	o
319	Architecturally robust tubular nano-clay grafted Li0.9Ni0.5Co0.5O2-x/LiFeO2 nanocomposites: New implications for electrochemical hydrogen storage. 2023 , 332, 126015	1
318	Interfacial charge transfer induced dual-active-sites of heterostructured Cu0.8Ni0.2WO4 nanoparticles in ammonia borane methanolysis for fast hydrogen production. 2023 , 320, 121973	2
317	Two new Ag-MOFs: Synthesis, structure, electrocatalytic hydrogen evolution and H2O2 electrochemical sensing. 2023 , 544, 121208	O
316	Dual functionality of novel Porous-Osmium(IV)-MOFs. 2023 , 1271, 134150	o
315	Mechanical energy storage technologies. 2022 ,	0
314	Design of a Novel Nautilus Bionic Flow Field for Proton Exchange Membrane Fuel Cell by Analyzing Performance.	O

313	Unsteady Combustion of the Heptane-in-Water Emulsion Foamed with Hydrogen-Oxygen Mixture.	O
312	Cost and technology readiness level assessment of emerging technologies, new perspectives, and future research directions in H2 production. 2022 , 6, 4357-4374	1
311	Phosphorus-modified Pt@Cu surfaces for efficient electrocatalysis of hydrogen evolution.	0
310	-Neural network-based optimization of hydrogen fuel production energy system with proton exchange electrolyzer supported nanomaterial. 2023 , 332, 125827	5
309	Hydrogen storage characteristics of Ti1.04Fe0.7Ni0.1Zr0.1Mn0.1Pr0.06 alloy treated by ball milling. 2023 , 930, 167024	O
308	Using first-principles modeling to investigate dehydrogenation of perhydro-dibenzyltoluene on Pt/M surface alloys (M´=´Fe, Ni, and Cu). 2023 , 331, 125779	O
307	Nonlinear dynamic analysis and structural optimization design of Ni/Mg modified single wall carbon nanotube for hydrogen storage. 2022 ,	0
306	A Review of Thermochemical Conversion of Waste Biomass to Biofuels. 2022 , 15, 6352	7
305	Impact of Pore Flexibility in Imine-Linked Covalent Organic Frameworks on Benzene and Cyclohexane Adsorption. 2022 , 14, 40890-40901	1
304	Remarkable hydrogen properties of MgH2 via combination of an in-situ formed amorphous carbon. 2022 , 47, 29358-29370	0
303	Thermodynamic Analysis of Binary and Trinary Power Cycles Fueled with Methane⊞ydrogen Blends. 2022 , 7, 73	0
302	Tuning Metal D ihydrogen Interaction in Metal D rganic Frameworks for Hydrogen Storage. 2022 , 13, 9129-9133	1
301	Confinement Engineering of Electrocatalyst Surfaces and Interfaces. 2207727	7
300	High order sliding mode based drift algorithm for a commercial PEM fuel cell system.	O
299	Accelerated bubble departure and reduced overpotential with nanoengineered porous bifunctional Ni5P4 electrocatalyst for PV-driven water splitting. 2022 ,	0
298	A thermochemical reactor design with better thermal management and improved performance for methane/carbon dioxide dry reforming. 2022 , 47, 34794-34809	1
297	Effects of metal-based additives on dehydrogenation process of 2NaBH4 + MgH2 system. 2022 ,	1
296	Mechanistic insights into methanol steam reforming over a ZnZr oxide catalyst with improved activity. 2022 , 47, 34312-34322	1

295	Materials Research Directions Toward a Green Hydrogen Economy: A Review. 2022 , 7, 32908-32935	1
294	Oxygen Defect Formation Thermodynamics of CaMnO 3 : A Closer Look. 2200427	1
293	A bifunctional electrochemical flow cell integrating ammonia production and electricity generation for renewable energy conversion and storage. 2022 ,	0
292	New horizon in mechanochemistryfligh-temperature, high-pressure mechanical synthesis in a planetary ball millwith magnesium hydride synthesis as an example. 2022 , 47, 35003-35016	O
291	Non-Noble Metal Ion-Based Metal-Organic Framework Electrocatalyst for Electrochemical Hydrogen Generation. 2022 , 101-120	0
290	Feasibility evaluation of Stand-Alone energy solutions in Energy-Poor Islands using sustainable hydrogen production.	1
289	Topological defects embedded large-sized single-walled carbon nanotubes for hydrogen storage: A molecular dynamics study. 2022 ,	0
288	Freely Customized virtual generator model for grid-forming converter with hydrogen energy storage. 2022 , 47, 34739-34761	0
287	Improving production of biohydrogen from COOH-functionalized multiwalled carbon nanotubes through Co-immobilization with Clostridium pasteurianum. 2022 ,	0
286	Investigation on M@CuOx/C (M=Ru, Rh, Pd and Pt) catalysts prepared by galvanic reduction for hydrogen evolution from ammonia borane. 2022 ,	O
285	Extremely simple structure hydrogen gas sensor based on single metallic thin-wire under sweep heating. 2022 , 47, 34291-34298	0
284	High valence metals engineering strategies of Fe/Co/Ni-based catalysts for boosted OER electrocatalysis. 2022 ,	3
283	Integration Opportunities of Power-to-Gas and Internet-of-Things Technical Advancements: A Systematic Literature Review. 2022 , 15, 6999	1
282	Characterization and Modeling of a Pt-In2O3 Resistive Sensor for Hydrogen Detection at Room Temperature. 2022 , 22, 7306	O
281	Process modeling and optimization of an eco-friendly process for acid gas conversion to hydrogen. 2022 ,	0
280	Hydrogen storage capacity and reversibility of Li-decorated B4CN3 monolayer revealed by first-principles calculations. 2022 ,	O
279	CuO Nanosheets Prepared by Dielectric Barrier Discharge Microplasma as Catalysts for the Oxygen Evolution Reaction.	0
278	A systematic review of the techno-economic assessment of various hydrogen production methods of power generation. 3,	O

277	Rational design of single tungsten/cobalt atom oxide anchored on the TiO2-rGO: A highly efficient electrocatalyst for water splitting and photocatalyst for decomposition of pharmaceutical pollutant. 2022 , 122298	0
276	Electronically Modified Ce3+ Ion Doped 2D NiFe-LDH Nanosheets over a 1D Microfiber: A High-Performance Electrocatalyst for Overall Water Splitting.	2
275	Influence of structural and chemical environmental factors on electrochemical hydrogen storage in carbon materials. 2022 , 433, 141223	0
274	Improved electrochemical properties of Co-P hydrogen storage material via doping with TiO2 nanotubes, nanofibers and nanoparticles prepared by different methods. 2022 , 807, 140077	O
273	Improved hydrogen storage performances of the as-milled Mg-Al-Y alloy by co-doping of Tm@C (Tm = Fe, Co, Cu). 2022 , 929, 167317	O
272	Combined cycles of SOFC/ICE and SOFC/GT IA brief review. 2022 ,	O
271	Two-dimensional materials for photoelectrochemical water splitting.	1
270	GaPS2Se2 Monolayer: Novel Stable 2D Janus Semiconductor with Anisotropic Properties for Spontaneous Water splitting under the Irradiation of Solar Light.	O
269	Accelerating the Electrocatalytic Performance of NiFeIDH via Sn Doping toward the Water Oxidation Reaction under Alkaline Condition. 2022 , 61, 16895-16904	1
268	Dissociative adsorption of hydrogen and methane molecules at high-angle grain boundaries of pipeline steel studied by density functional theory modeling. 2022 ,	O
267	Improved Bifunctional Catalytic Performance of FeNiMoB Ribbons in Alkaline Electrolyte by Dealloying.	O
266	A Promising Energy Storage System Based on High-Capacity Metal Hydrides. 2022 , 15, 7871	O
265	Advances in Matrix-Supported Palladium Nanocatalysts for Water Treatment. 2022, 12, 3593	1
264	Experiment, simulation, optimization design, and damage detection of composite shell of hydrogen storage vessel-A review. 073168442211327	1
263	Hydrogen-brine mixture PVT data for reservoir simulation of hydrogen storage in deep saline aquifers. 2022 ,	O
262	Effect of the physical adsorption of ionomer on Pt particles on the fluid characteristics of PEMFC catalyst ink. 2022 ,	O
261	Composite Structured M/Ce0.75Zr0.25O2/Al2O3/FeCrAl (M = Pt, Rh, and Ru) Catalysts for Propane and n-Butane Reforming to Syngas. 2022 , 15, 7336	2
260	Novel High Conductive Ceramic Materials Based on Two-Layer Perovskite BaLa2In2O7. 2022 , 23, 12813	O

259	Methanol and dimethyl ether steam reforming: a thermodynamic analysis.	О
258	A novel flamelet manifold parametrization approach for lean CH4H2-air flames. 2022,	O
257	CatalystBupport Surface Charge Effects on Structure and Activity of IrNi-Based Oxygen Evolution Reaction Catalysts Deposited on Tin-Oxide Supports.	1
256	Pyrolysis of Macroalga Macrocystis Pyrifera for Production of Green Carbon-Negative Hydrogen. 2022 ,	O
255	Prospects for the production of green hydrogen: Review of countries with high potential. 2022,	1
254	Kinetic Modeling of the Thermal Decomposition of Zinc Sulfate Through a Global Optimization Method.	O
253	A 2D Multi-Layer Model to Study the External Magnetic Field Generated by a Polymer Exchange Membrane Fuel Cell. 2022 , 10, 3883	О
252	Solvation and Stabilization of Superior Alanate Nanostructures. 2200819	O
251	Electron Coupling between the Linear-Conjugated Polymer Nanocluster and TiO2 Nanoparticle Enables a Quantum Leap for Visible Light-Driven Hydrogen Evolution.	О
250	Impact of geological and operational conditions on underground hydrogen storage. 2022,	O
249	A Comparative Study of Hydrogen Storage Properties of AZ31 and AZ91 Magnesium Alloys Processed by Different Methods 2022 , 167854	О
248	Synergistic effect of Pt-loaded Co-N-C electrocatalysts for hydrogen evolution reaction in alkaline conditions. 2022 , 155523	O
247	Investigation of hydrogen embrittlement behavior in X65 pipeline steel under different hydrogen charging conditions. 2022 , 144262	1
246	Flow process and energy release of hydrogen in fluorine. 2022,	O
245	Capacity optimization and energy dispatch strategy of hybrid energy storage system based on proton exchange membrane electrolyzer cell. 2022 , 272, 116366	1
244	Optimizing hydrogen ad/desorption of Mg-based hydrides for energy-storage applications. 2022 ,	1
243	A review of superhydrophobic shape-memory polymers: Preparation, activation, and applications. 2022 , 29, 101665	О
242	Influence of porous carbon loaded with iron particles on hydrogen storage performances of as-milled Mg-Al-Y alloy. 2022 , 194, 112406	O

241	DFTB investigations of structures and electron states for a decahedron Ti7 cluster on graphene on electrical level. 2022 , 130, 109459	O
240	Evaluation and screening of porous materials containing fluorine for carbon dioxide capture and separation. 2023 , 216, 111872	O
239	Design of a novel nautilus bionic flow field for proton exchange membrane fuel cell by analyzing performance. 2023 , 200, 123517	1
238	Electrochemical energy storage part I: development, basic principle and conventional systems. 2023 , 151-188	O
237	Photo-thermal synergic enhancement of Co FeAl-LDHs for hydrogen generation from hydrolysis of NaBH4. 2023 , 610, 155325	1
236	Anion-exchange membrane water electrolyzers and fuel cells.	4
235	Surface-chemistry-driven water dissociation on cobalt-based graphene hybrid from molecular dynamics simulations.	Ο
234	Effect of ammonia co-firing on heat transfer, safety, and economy of coal-fired boilers. 2023 , 334, 126649	O
233	Mesoporous Acidic SiO2国2O3 Support Boosts Nickel Hydrogenation Catalysis for H2 Storage in Aromatic LOHC Compounds.	Ο
232	Hydrogen adsorption in nanotube and cylindrical pore: A grand canonical Monte Carlo simulation study. 2022 ,	Ο
231	An autonomous fuel cell: Methanol and dimethyl ether steam reforming direct fed to fuel cell. 2022 ,	1
230	First-principles calculations on superconductivity and H-diffusion kinetics in MgBH phases under pressures. 2022 ,	O
229	By β roducts from the AlWater Reaction for Hydrogen Generation θ volution and Properties. 2022 , 7,	Ο
228	On the feasibility of direct hydrogen utilisation in a fossil-free Europe. 2022 ,	O
227	Improved photostability of CuO by using WO3/CuO and BiVO4/WO3/CuO heterojunction photoelectrodes with various thermal annealing processes. 2022 ,	0
226	Performance analysis of vapor-cooled shield insulation integrated with para-ortho hydrogen conversion for liquid hydrogen tanks. 2022 ,	Ο
225	Underground hydrogen storage in Australia: A review on the feasibility of geological sites. 2022,	Ο
224	High temperature electrochemical discharge performance of LaFeO3 coated with C/Ni as anode material for NiMH batteries. 2022 ,	1

223	CeFeO3ITeO2ITe2O3 Systems: Synthesis by Solution Combustion Method and Catalytic Performance in CO2 Hydrogenation. 2022 , 15, 7970	О
222	Cyclic Amide-Anchored NHC-Based Cp*Ir Catalysts for Bidirectional Hydrogenation Dehydrogenation with CO2/HCO2H Couple.	1
221	Numerical simulation on flow and reaction characteristics for catalytic region in helium-heated steam reformer coupled with HTR-10. 2022 , 154, 104435	0
220	The role of storage systems in hydrogen economy: A review. 2022 , 108, 104843	3
219	Recent advances in lignin-based carbon materials and their applications: A review. 2022 , 223, 980-1014	Ο
218	Hydrogen permeation barriers and preparation techniques: A review. 2022 , 40, 060803	O
217	A Fancy Hydrangea Shape Bimetallic Ni-Mo Oxide of Remarkable Catalytic Effect for Hydrogen Storage of MgH2. 2022 ,	Ο
216	Compatibility of High-Density Polyethylene Piping and Associated Elastomers with the Renewable Fuels Ammonia and Dimethyl Ether.	Ο
215	Palladium/Graphene Oxide Nanocomposite for Hydrogen Gas Sensing Applications Based on Tapered Optical Fiber. 2022 , 15, 8167	1
214	Hydrogen storage systems. 2023 , 269-282	O
214	Hydrogen storage systems. 2023, 269-282 The Edge Effects Boosting Hydrogen Evolution Performance of Platinum/Transition Bimetallic Phosphide Hybrid Electrocatalysts. 2209967	0
	The Edge Effects Boosting Hydrogen Evolution Performance of Platinum/Transition Bimetallic	
213	The Edge Effects Boosting Hydrogen Evolution Performance of Platinum/Transition Bimetallic Phosphide Hybrid Electrocatalysts. 2209967 Research on building cryo-compressed test condition on large CcH2 vessel for heavy-duty fuel cell	0
213	The Edge Effects Boosting Hydrogen Evolution Performance of Platinum/Transition Bimetallic Phosphide Hybrid Electrocatalysts. 2209967 Research on building cryo-compressed test condition on large CcH2 vessel for heavy-duty fuel cell trucks. 2023, 57, 106148 Interference effect of nitrogen-doped CQDs on tailoring nanostructure of CoMoP for improving	0
213	The Edge Effects Boosting Hydrogen Evolution Performance of Platinum/Transition Bimetallic Phosphide Hybrid Electrocatalysts. 2209967 Research on building cryo-compressed test condition on large CcH2 vessel for heavy-duty fuel cell trucks. 2023, 57, 106148 Interference effect of nitrogen-doped CQDs on tailoring nanostructure of CoMoP for improving high-effective water splitting. 2023, 438, 141595	0 0
213 212 211 210	The Edge Effects Boosting Hydrogen Evolution Performance of Platinum/Transition Bimetallic Phosphide Hybrid Electrocatalysts. 2209967 Research on building cryo-compressed test condition on large CcH2 vessel for heavy-duty fuel cell trucks. 2023, 57, 106148 Interference effect of nitrogen-doped CQDs on tailoring nanostructure of CoMoP for improving high-effective water splitting. 2023, 438, 141595 Review on Intrinsic Electrocatalytic Activity of Transition Metal Nitrides on HER. 2022, 2022,	o o o
213 212 211 210 209	The Edge Effects Boosting Hydrogen Evolution Performance of Platinum/Transition Bimetallic Phosphide Hybrid Electrocatalysts. 2209967 Research on building cryo-compressed test condition on large CcH2 vessel for heavy-duty fuel cell trucks. 2023, 57, 106148 Interference effect of nitrogen-doped CQDs on tailoring nanostructure of CoMoP for improving high-effective water splitting. 2023, 438, 141595 Review on Intrinsic Electrocatalytic Activity of Transition Metal Nitrides on HER. 2022, 2022, A new non-complex synthesis of NiO nanofoams for hydrogen storage applications. Sustainability applications of rare earths from metallurgy, magnetism, catalysis, luminescence to	o o o

205	Insights into structural and electronic properties of (LiH) ($n = 505$) clusters: Density functional calculations. 2023 , 295, 127189	0
204	Synergy between nitrogen, phosphorus co-doped carbon quantum dots and ZnO nanorods for enhanced hydrogen production. 2023 , 937, 168397	1
203	Sustainable synthesis of metal-organic frameworks and their derived materials from organic and inorganic wastes. 2023 , 478, 214986	4
202	A review of hydrogen/rock/brine interaction: Implications for Hydrogen Geo-storage. 2023 , 95, 101066	2
201	A novel cryogenic fixed-bed adsorption apparatus for studying green hydrogen recovery from natural gas grids. 2023 , 307, 122824	0
200	Photo-Gasochromic Effect in (WO3)1-x-(MoO3)x Nanocolloid Suspensions. 2023 , 147, 115621	О
199	Surface modification of CuInS2 photocathodes with ruthenium co-catalysts for efficient solar water splitting. 2023 , 612, 155856	2
198	Issues and challenges in hydrogen separation technologies. 2023 , 9, 894-911	O
197	A facile approach to enhance the hydrogen evolution reaction of electrodeposited MoS2 in acidic solutions. 2022 , 46, 23344-23350	0
196	On the effect of metal loading on the performance of Co catalysts supported on mixed MgOIla2O3 oxides for ammonia synthesis. 2022 , 12, 33876-33888	2
195	Hydrogen as Energy Storage for Renewables in East Asia: Economic Competitiveness and Policy Implications. 2022 , 1-33	0
194	Hydrogen electrolyser for sustainable energy production: A bibliometric analysis and future directions. 2022 ,	O
193	Lignin Gasification: Current and Future Viability. 2022 , 15, 9062	0
192	PtNi Nanoparticles on V2C MXene as Hydrazine Dehydrogenation Catalysts. 2022 , 5, 18357-18364	O
191	Application of Artificial Neural Network (ANN) for Calculations of PressureConcentrationTemperature (PCT) Diagrams in Hydrogen IMetal Hydride Systems. 2023 , 137-146	0
190	Effects of highly dispersed Ni nanoparticles on the hydrogen storage performance of MgH2. 2023 , 30, 54-62	O
189	Influence of renewable energy power fluctuations on water electrolysis for green hydrogen production. 2022 ,	2
188	Low-Carbon Transition Pathway Planning of Regional Power Systems with Electricity-Hydrogen Synergy. 2022 , 15, 8764	O

187	Pd/In2O3-based bilayer H2 sensor with high resistance to silicone toxicity and ultra-fast response. 2022 ,	0
186	A review of technical and regulatory limits for hydrogen blending in natural gas pipelines. 2022 ,	О
185	The Evolution of Surface Oxides during TiFe0.9M0.1 (M = Ni, Mn) Activation: An In Situ XPS Investigation. 2022 , 12, 2093	О
184	Effect of oxygen addition on phase composition and activation properties of TiFe alloy. 2022,	O
183	Influence of Butanol Isomerization on Photothermal Hydrogen Production over Ti@TiO2 Core-Shell Nanoparticles. 2022 , 12, 1662	О
182	Comparative Analysis of Energy Storage Methods for Energy Systems and Complexes. 2022 , 15, 9541	1
181	Multi-scale imaging of high-pressure hydrogen induced damage in EPDM rubber using X-ray microcomputed tomography, helium-ion microscopy and transmission electron microscopy. 2022 ,	0
180	Characterization of Boride Coatings on AISI 8620 Steels without and with Hydrogen Permeation. 2022 , 2022, 1-13	Ο
179	Design of ammonia oxidation electrocatalysts for efficient direct ammonia fuel cells. 2022 , 100093	0
178	Paving the Way to the Fuel of the FutureNanostructured Complex Hydrides. 2023 , 24, 143	О
177	Role of vacancies and transition metals on the thermodynamic properties of MgH2: Ab-initio study. 2022 ,	О
176	First-principle prediction of one-dimensional silicon allotropes: Promising new candidate for chemical and electrochemical hydrogen storage. 2022 ,	О
175	Research on the inducing factors and characteristics of knock combustion in a DI hydrogen internal combustion engine in the process of improving performance and thermal efficiency. 2022 ,	O
174	Non-Metal-Doped Porous Carbon Nitride Nanostructures for Photocatalytic Green Hydrogen Production. 2022 , 23, 15129	1
173	The rare earth doped Mg2Ni (010) surface enhances hydrogen storage. 2022 , 156243	О
172	Highly sensitive EGa2O3 flake based Schottky diode hydrogen sensor. 2022 , 133212	O
171	Integration of wind turbine with biomass-fueled SOFC to provide hydrogen-rich fuel; economic and CO2 emission reduction assessment. 2022 ,	О
170	N-Doped Carbon Nanofibers Coupled with TiO2 Quantum Dots for Photocatalytic Hydrogen Production.	O

169	Fabrication of NiO/YSZ-Based Anodes for Solid Oxide Fuel Cells by Hybrid 3D Inkjet Printing and Laser Treatment. 2022 , 5, 1115-1127	0
168	Bibliometric Analysis of Global Trends around Hydrogen Production Based on the Scopus Database in the Period 2011 0 021. 2023 , 16, 87	1
167	Tuning of electrocatalytic activity of mixed metal dichalcogenides supported NiMoP coatings for alkaline hydrogen evolution reaction. 2022 ,	0
166	Pristine Metal©rganic Frameworks and their Composites for Renewable Hydrogen Energy Applications. 2203224	1
165	An integrated framework of open-source tools for designing and evaluating green hydrogen production opportunities. 2022 , 3,	0
164	Feasibility Analysis of Coupling Hydrogen-Derived Fuel on a Coal-Fired Boiler for Power Generation.	О
163	Hydrogen production and separation in fuel-rich operated HCCI engine polygeneration systems: exergoeconomic analysis and comparison between pressure swing adsorption and palladium membrane separation. 2022 , 100108	O
162	A Robust Controller of a Reactor Electromicrobial System Based on a Structured Fractional Transformation for Renewable Energy. 2022 , 6, 736	1
161	Hydrogen storage using novel graphene-carbon nanotube hybrid. 2022,	О
160	Capacity assessment and cost analysis of geologic storage of hydrogen: A case study in Intermountain-West Region USA. 2022 ,	О
159	Estimating hydrogen absorption energy on different metal hydrides using Gaussian process regression approach. 2022 , 12,	О
158	Dependence of the Atomic Structure of Solid Solutions in the Pd-Cu System Ordered According to the B2 Type on the Composition. 2022 , 10, 2632	О
157	Reflecting the energy transition from a European perspective and in the global context ${\bf R}$ elevance of solar photovoltaics benchmarking two ambitious scenarios.	1
156	Evaluating Bio-Hydrogen Production Potential and Energy Conversion Efficiency from Glucose and Xylose under Diverse Concentrations. 2022 , 8, 739	O
155	Global warming potential (GWP) for hydrogen: Sensitivities, uncertainties and meta-analysis. 2022,	O
154	Green Hydrogen and Energy Transition: Current State and Prospects in Portugal. 2023, 16, 551	О
153	Bonding states of hydrogen for supported Ti clusters on pristine and defective graphene. 2023,	O
152	Doping Fe and Zn to modulate Ni nanoparticles on IM-5 for methane decomposition to form hydrogen and CNTs. 2023 ,	O

151	Technology life cycle and commercialization readiness of hydrogen production technology using patent analysis. 2023 ,	О
150	CuNi Alloy NPs Anchored on Electrospun PVDF-HFP NFs Catalyst for H2 Production from Sodium Borohydride. 2023 , 15, 474	O
149	Enhanced CO2/H2 separation by GO and PVA-GO embedded PVAm nanocomposite membranes. 2023 , 121397	0
148	The economic analysis for hydrogen production cost towards electrolyzer technologies: Current and future competitiveness. 2023 ,	O
147	Recent trends of biotechnological production of polyhydroxyalkanoates from C1 carbon sources. 10,	0
146	Improved hydrogen gas sensing performance of PdNi alloy thin films. 2023,	1
145	Cost-effective selective hydrogen sensor based on the combination of catalytic spillover effect and impedance measurement. 2023 ,	0
144	Bibliometric study on the application of manganese dioxide in environmental catalysis worldwide from 1991 to 2021.	0
143	An Innovative Approach for Energy Transition in China? Chinese National Hydrogen Policies from 2001 to 2020. 2023 , 15, 1265	0
142	Tailoring pore size and catalytic activity in cobalt iron layered double hydroxides and spinels by microemulsion-assisted pH-controlled co-precipitation.	0
141	A Bibliometric Analysis and Disruptive Innovation Evaluation for the Field of Energy Security. 2023 , 15, 969	0
140	Surface Modified CoCrFeNiMo High Entropy Alloys for Oxygen Evolution Reaction in Alkaline Seawater. 2023 , 11, 245	1
139	Aluminum methylamidoborane complexes: mechanochemical synthesis, structure, stability and reactive hydride composites.	0
138	Blasingame decline theory for hydrogen storage capacity estimation in shale gas reservoirs. 2023,	0
137	Regime and morphology of polyhedral bunsen flames. 2023 , 248, 112585	0
136	Alumina supported copper oxide nanoparticles (CuO/Al2O3) as high-performance electrocatalysts for hydrazine oxidation reaction. 2023 , 315, 137659	O
135	Hydrogen ortho-para conversion: process sensitivities and optimisation. 2023, 184, 109272	0
134	Corroded Fe78Si9B13 amorphous alloy as electrocatalyst for oxygen evolution reaction of water splitting. 2023 , 603, 122117	Ο

133	Evaluating the sustainability of the hydrogen economy using multi-criteria decision-making analysis in Korea. 2023 , 204, 485-492	0
132	Experimental investigation on kinetic model with reaction heat for coal gasification in supercritical water. 2023 , 340, 127407	O
131	New insights into the electrochemical and thermodynamic properties of AB-type ZrNi hydrogen storage alloys by native defects and H-doping: Computational experiments. 2022 ,	0
130	Embedding Group VIII Elements into a 2D Rigid pc-C3N2 Monolayer to Achieve Single-Atom Catalysts with Excellent OER Activity: A DFT Theoretical Study. 2023 , 28, 254	O
129	A study of relative electrochemical hydrogen storage capacity of active materials based on Zn3Mo2O9/ZnO and Zn3Mo2O9/ZnMoO4. 2022 ,	0
128	Layered Perovskites BaLnnInnO3n+1 (n = 1, 2) for Electrochemical Applications: A Mini Review. 2023 , 13, 34	1
127	Modern Technologies of Hydrogen Production. 2023 , 11, 56	0
126	A multi-objective optimization model based on mixed integer linear programming for sizing a hybrid PV-hydrogen storage system. 2022 ,	O
125	A Review on Thermal Coupling of Metal Hydride Storage Tanks with Fuel Cells and Electrolyzers. 2023 , 16, 341	0
124	Perspectives on Hydrogen. 2023 , 16, 437	O
124	Perspectives on Hydrogen. 2023, 16, 437 Influence of a Sealing Layer on the Physical and Mechanical Properties of the Shell of a High-Pressure Vessel for Hydrogen Storage. 2022, 16, 1172-1179	0
, i	Influence of a Sealing Layer on the Physical and Mechanical Properties of the Shell of a	
123	Influence of a Sealing Layer on the Physical and Mechanical Properties of the Shell of a High-Pressure Vessel for Hydrogen Storage. 2022, 16, 1172-1179 Boosting hydrogen production by ethanol steam reforming on cobalt-modified NiAl2O3 catalyst.	1
123	Influence of a Sealing Layer on the Physical and Mechanical Properties of the Shell of a High-Pressure Vessel for Hydrogen Storage. 2022, 16, 1172-1179 Boosting hydrogen production by ethanol steam reforming on cobalt-modified NiAl2O3 catalyst. 2023, Novel Pr-Doped BaLaInO4 Ceramic Material with Layered Structure for Proton-Conducting	1 0
123	Influence of a Sealing Layer on the Physical and Mechanical Properties of the Shell of a High-Pressure Vessel for Hydrogen Storage. 2022, 16, 1172-1179 Boosting hydrogen production by ethanol steam reforming on cobalt-modified NiAl2O3 catalyst. 2023, Novel Pr-Doped BaLalnO4 Ceramic Material with Layered Structure for Proton-Conducting Electrochemical Devices. 2023, 13, 1328	1 O
123 122 121 120	Influence of a Sealing Layer on the Physical and Mechanical Properties of the Shell of a High-Pressure Vessel for Hydrogen Storage. 2022, 16, 1172-1179 Boosting hydrogen production by ethanol steam reforming on cobalt-modified NiAl2O3 catalyst. 2023, Novel Pr-Doped BaLainO4 Ceramic Material with Layered Structure for Proton-Conducting Electrochemical Devices. 2023, 13, 1328 Metal©rganic Framework Materials for Production and Distribution of Ammonia. 2023, 145, 1998-2012	1 0 1
123 122 121 120	Influence of a Sealing Layer on the Physical and Mechanical Properties of the Shell of a High-Pressure Vessel for Hydrogen Storage. 2022, 16, 1172-1179 Boosting hydrogen production by ethanol steam reforming on cobalt-modified NiAl2O3 catalyst. 2023, Novel Pr-Doped BaLainO4 Ceramic Material with Layered Structure for Proton-Conducting Electrochemical Devices. 2023, 13, 1328 Metal©rganic Framework Materials for Production and Distribution of Ammonia. 2023, 145, 1998-2012 Reinforce the dehydrogenation process of LiAlH4 by accumulating porous activated carbon. 2023, Hydrogen Storage Properties of Graphitic Carbon Nitride Nanotube Synthesized by Mix-Grind	1 O O

115	Microstructure and Hydrogen Storage Performance of Ball-Milled MgH2 Catalyzed by FeTi. 2023 , 16, 1061	О
114	The growth of biopolymers and natural earthen sources as membrane/separator materials for microbial fuel cells: A comprehensive review. 2023 ,	1
113	Tuning the Properties of Thin-Film TaRu for Hydrogen-Sensing Applications.	1
112	Deep Reconstruction of Fe-NiMoO4[hH2O@NiOOH as Efficient Oxygen Evolution Electrocatalysts.	1
111	Three-Dimensional Strawlike MoSe2-Ni(Fe)Se Electrocatalysts for Overall Water Splitting.	O
110	The value of diurnal and seasonal energy storage in baseload renewable energy systems: A case study of Ras Ghareb Œgypt. 2023 , 61, 106764	O
109	Assessing Compatibility of Natural Gas Pipeline Materials with Hydrogen, CO2, and Ammonia. 2023 , 14,	Ο
108	Optimum configuration of a dispatchable hybrid renewable energy plant using artificial neural networks: Case study of Ras Ghareb, Egypt. 2023 , 11, 171-196	O
107	Hydrogen, the zero carbon fuel. 2023 , 149-178	0
106	Hydrogen Storage Performance of Mg/MgH2 and Its Improvement Measures: Research Progress and Trends. 2023 , 16, 1587	O
105	New Insights into Cu/Cu2O/CuO Nanocomposite Heterojunction Facilitating Photocatalytic Generation of Green Fuel and Detoxification of Organic Pollutants.	О
104	Facile electrodeposition synthesis and super performance of nano-porous Ni-Fe-Cu-Co-W high entropy alloy electrocatalyst. 2023 , 459, 129407	Ο
103	Pt loading to promote hydrogen evolution from ammonia-borane hydrolysis of Ni2P under visible light. 2023 , 620, 156787	Ο
102	Effective thermal conductivity of metal hydride particle bed: Theoretical model and experimental validation. 2023 , 271, 127085	Ο
101	Underground hydrogen storage in reservoirs: pore-scale mechanisms and optimization of storage capacity and efficiency. 2023 , 337, 120901	0
100	Blue hydrogen: Current status and future technologies. 2023 , 283, 116840	Ο
99	Through the Self-Optimization process to achieve high OER activity of SAC catalysts within the framework of TMO3@G and TMO4@G: A High-Throughput theoretical study. 2023 , 640, 405-414	0
98	Thermally constructed stable Zn-doped NiCoOx-z alloy structures on stainless steel mesh for efficient hydrogen production via overall hydrazine splitting in alkaline electrolyte. 2023 , 640, 737-749	Ο

97	Controllable hydrogen generation at low temperatures and safety evaluation for tin anode materials of spent lithium-ion batteries. 2023 , 947, 169548	0
96	Hydrogen production by hydrolysis from Mg rich compounds and composites NdNiMg15-Mg: How to combine fundamental and applied science?. 2023 , 947, 169592	O
95	Integration of catalytic methane oxy-reforming and water gas shift membrane reactor for intensified pure hydrogen production and methanation suppression over Ce0.5Zr0.5O2 based catalysts. 2023 , 418, 114047	O
94	Synthetic fuels: what are they and where do they come from?. 2023 , 81, 102919	O
93	The study of electrochemical hydrogen storage behavior of the UiO-66 framework on the metal/reduced graphene oxide substrate. 2023 , 341, 127624	O
92	Strategies for flexible operation of power-to-X processes coupled with renewables. 2023 , 179, 113282	O
91	Fuel cell and hydrogen in maritime application: A review on aspects of technology, cost and regulations. 2023 , 57, 103181	0
90	Effective hydrogen production by hydrolysis of Mg wastes reprocessed by mechanical milling with iron and graphite. 2023 , 946, 169352	O
89	Reversible hydrogen storage on multiple Ti-doped B12C6N6 nanocage. 2023 , 62, 106910	0
88	A short overview of Power-to-Methane: Coupling preparation of feed gas with CO2 methanation. 2023 , 274, 118692	O
87	Structure evolution and durability of Metal-Nitrogen-Carbon (M´=´Co, Ru, Rh, Pd, Ir) based oxygen evolution reaction electrocatalyst: A theoretical study. 2023 , 640, 170-178	O
86	Effect of morphology on the hydrogen storage capacity of sol-gel synthesized Ce-Y-O nanostructures. 2023 , 64, 107195	O
85	State-of-the-art hydrogen generation techniques and storage methods: A critical review. 2023 , 64, 107196	1
84	Continuous caustic aqueous phase electrochemical reforming (CAPER) of ethanol for producing compressed hydrogen. 2023 , 247, 107751	O
83	Photoreforming of Waste Polymers for Sustainable Hydrogen Fuel and Chemicals Feedstock: Waste to Energy.	O
82	Preparation of PrCoO3/CuO nanocomposites on the g-C3N4 substrate for performance comparison of hydrogen storage capacity. 2023 , 63, 106999	O
81	Amorphous alloys for hydrogen storage. 2023 , 941, 168945	1
80	Co-MOF induced B lossom branch likeIMoS2@Co9S8/C nanofibers as a bifunctional catalyst for HER and OER. 2023 , 616, 156486	O

79	A novel integrated hydrogen and natural gas liquefaction process utilizing a modified double mixed refrigerant process pre-cooling system. 2023 , 224, 120085	O
78	Power-to-hydrogen and hydrogen-to-X energy systems for the industry of the future in Europe. 2023 ,	2
77	Soft Metal Hydride Actuator as a Rescue Jack Using Accessible Heat Sources. 2023 , 24, 585-594	O
76	Three-Dimensional Numerical Simulation of the Performance and Transport Phenomena of Oxygen Evolution Reactions in a Proton Exchange Membrane Water Electrolyzer. 2023 , 16, 1310	O
75	A Global Review of the Hydrogen Energy Eco-System. 2023 , 16, 1484	2
74	Coronavirus-Like CoreBhell-Structured Co@C for Hydrogen Evolution via Hydrolysis of Sodium Borohydride. 2023 , 28, 1440	O
73	A Cfd Study on Scaling Up a Single Flat Membrane Reactor for On-Site Hydrogen Production.	0
72	Real-time tunable hydrogen generation from hydrolysis of borohydrides using 3D magnetic catalysts. 2023 , 10, 1876-1886	O
71	Review on the characteristics of existing hydrogen energy storage technologies. 2023, 45, 985-1006	O
70	Cost Efficiency Analysis of H2 Production from Formic Acid by Molecular Catalysts. 2023 , 16, 1723	O
69	Application of transition metal high entropy boride in electrocatalytic hydrogen evolution reaction. 2023 ,	O
68	Fabricating Ru single atoms and clusters on CoP for boosted hydrogen evolution reaction. 2023 , 100035	2
67	Theoretical study of hydrogen adsorption kinetics: Mg17Al12 vs pure Mg. 2023,	О
66	Research and development of on-site small skid-mounted natural gas to hydrogen generator in China. 2023 ,	O
65	Optimization of interfacial bonding properties between thermoplastic liners and carbon fiber-reinforced composites by atmospheric-pressure plasma and failure mechanism study. 2023 , 44, 2361-2378	0
64	Energy saving analysis and thermal performance evaluation of a hydrogen-enriched natural gas-fired condensing boiler. 2023 ,	O
63	Cobalt-Promoted Noble-Metal Catalysts for Efficient Hydrogen Generation from Ammonia Borane Hydrolysis. 2023 , 145, 5486-5495	O
62	MOF-derived Co/Zn single-atom catalysts for reversible hydrogenation and dehydrogenation of quinoline hydrogen carrier. 2023 , 328, 122482	O

61	Design of a multi-inlet solar thermochemical reactor for steam methane reforming with improved performance. 2023 ,	O
60	Mechanism of tungsten strengthening hydrogen transportation in Nb48Ti27Co25 hydrogen permeable alloy membrane. 2023 , 23, 5413-5422	O
59	Optimizing Electronic and Geometrical Structure of Vanadium Doped Cobalt Phosphides for Enhanced Electrocatalytic Hydrogen Evolution.	O
58	A numerical study on turquoise hydrogen production by catalytic decomposition of methane. 2023 , 186, 109323	O
57	Research and application of TiMn-based hydrogen storage alloys.	O
56	Electrocatalysis of the hydrogen oxidation reaction on a platinum-decorated nanoporous gold surface studied by scanning electrochemical microscopy. 2023 , 934, 117294	O
55	The Origin and Occurrence of Natural Hydrogen. 2023 , 16, 2400	O
54	Numerical study on hydrogen and thermal storage performance of a sandwich reaction bed filled with metal hydride and thermochemical material. 2023 ,	1
53	Utilization of food waste for hydrogen-based power generation: Evidence from four cities in Ghana. 2023 , 9, e14373	0
52	Photoacoustic dual-gas sensor for simultaneous detection of hydrogen and water vapor. 2023,	O
51	Effect of B-Doping and Manifestation on TiO2-Supported IrO2 for Oxygen Evolution Reaction in Water Electrolysis. 2023 , 39, 4005-4014	O
50	Baby diaper's super absorbent polymer derived carbon templated NiCuP@NiCu nanostructures for green hydrogen production. 2023 ,	O
49	Insights into the Origin of High Activity of Ni5P4(0001) for Hydrogen Evolution Reaction. 2023 , 127, 5385-53	94 0
48	Positive influence of minute Pt addition on the activity of Ni supported on defective graphene for hydrogenation/dehydrogenation of N-ethylcarbazole as liquid organic carrier. 2023 , 177, 106641	O
47	The Effect of Strain on Hydrogen StorageCharacteristics in K2NaAlH6 'double Perovskite Hydride through First-principles method.	O
46	High-rate Decoupled Water Electrolysis System Integrated with ⊞MoO 3 as a Redox Mediator with Fast Anhydrous Proton Kinetics. 2214466	O
45	Defect Formation Thermodynamics of (A,A?)(B,B?)O3 (A = Mg,Ca,Sr and B = Ti,Mn,Cr,Fe,Mo) Perovskites. 2300048	О
44	Optimal dome design for 700 bar hydrogen tank type IV : Hyperelliptic functions and shape factor.	O

43	Ternary compound heterojunction from isomerism h-CdS/c-CdSe exhibits boosting photoelectrochemical and hydrogen evolution reaction properties. 2023 ,	0
42	Amorphized Defective Fullerene with a Single-Atom Platinum for Room-Temperature Hydrogen Storage. 2300041	Ο
41	Destabilization of the LiBH4NaBH4 Eutectic Mixture through Pore Confinement for Hydrogen Storage. 2023 , 11, 128	Ο
40	High entropy nanomaterials for energy storage and catalysis applications. 11,	Ο
39	Adsorption and dissociation of H2 molecule over first-row transition metal doped C24 nanocage as remarkable SACs: A comparative study. 2023 ,	O
38	Carbon spheres as an efficient green catalysts for dehydrogenation of sodium borohydride in methanol. 2023 , 177, 106650	O
37	Relationship between the Surface Reconstruction of Nickel Phosphides and Their Activity toward the Hydrogen Evolution Reaction. 2023 , 13, 4611-4621	0
36	Trend analysis and evaluation of hydrogen energy and hydrogen storage research.	Ο
35	Energy saving control and operation strategy analysis of thermal coupling system of fuel cell and metal hydride tank. 2023 ,	0
34	A temperature-stable Pd nanofilm hydrogen sensor with a Wheatstone bridge structure. 2023 , 34,	О
33	Graphited carbon black curled nanoribbons simultaneously boosted stability and electrocatalytic activity of 1T-MoS2/MoO3 toward hydrogen evolution. 2023 , 949, 169831	0
32	Combined effect of multiple atomic interactions and structural catalysis on the dehydrogenation from MgH2 in Mg(H2)-Ni-rGO system.	Ο
31	Hydrogen Adsorption in Porous Silicon: Simulation and Control Method. 2023,	0
30	Modulation in the d Band of Ir by CoreBhell Construction for Robust Water Splitting Electrocatalysts in Acid.	O
29	Enhancement of hydrogen storage performance in shell and tube metal hydride tank for fuel cell electric forklift. 2023 ,	O
28	On the Critical Condition for Flame Acceleration in Hydrogen-Based Mixtures. 2023 , 16, 2813	O
27	A fresh look at thermal cycling absorption process for hydrogen isotopes separation by dynamic simulation: Initial feeding process and total reflux mode. 2023 ,	0
26	The TWh challenge: Next generation batteries for energy storage and electric vehicles. 2023 , 1, 100015	O

25	Deposition of titanium carbide catalytic films on vanadium foils by ion beam sputtering for hydrogen separation and purification. 2023 , 773, 139835	0
24	Improvement of decomposition temperature and gravimetric density of MgH2 by transition metals and vacancies: A comparison study. 2023 , 115170	O
23	Combustion, Chemistry, and Carbon Neutrality.	0
22	Nanostructuring of Mg-Based Hydrogen Storage Materials: Recent Advances for Promoting Key Applications. 2023 , 15,	Ο
21	Green Hydrogen Scale Prediction Based on System Dynamics Model for Carbon Neutrality. 2023,	0
20	External field assisted hydrogen evolution reaction.	Ο
19	Hydrogen Production via Cerium-Promoted Dehydrogenation of Formic Acid Catalyzed by Carbon-Supported Palladium Nanoparticles.	0
18	Unsteady Combustion of the Heptane-in-Water Emulsion Foamed with Hydrogen Dxygen Mixture. 2023 , 13, 4829	Ο
17	Base-Free Reversible Hydrogen Storage Using a Tethered ECoordinated-Phenoxy Ruthenium-Dimer Precatalyst. 5787-5794	0
16	A comparative study of single and dual ejector concepts for anodic recirculation system in high-performance vehicular proton exchange membrane fuel cells. 2023 ,	0
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10	Structured nanoporous copper catalysts prepared by laser powder bed fusion and dealloying for on-board methanol steam reforming. 2023 , 347, 128367	O
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7	Exploring the Hydrogen Sorption Capabilities of a Novel Ti-V-Mn-Zr-Nb High-Entropy Alloy. 2023 , 11, 186	О
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