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Metal hydride materials for solid hydrogen storage: A review

DOI: 10.1016/j.ijhydene.2006.11.022

International Journal of Hydrogen Energy, 2007, 32, 1121-1140

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2330	High temperature pressure processing of mixed alanate compounds. <b>2008</b> , 69, 2141-2145		6
2329	Exploring the hydrogen sorption capacity of MgNi powders produced by the vapour deposition technique. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 3122-3127	6.7	14
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2322	First-principles investigation of Mg <sub>2</sub> THy (T=Ni, Co, Fe) complex hydrides. <b>2008</b> , 403, 4217-4223		13
2321	Metal hydride fires and fire suppression agents. <b>2008</b> , 21, 214-221		14
2320	Study of the hydride forming process of in-situ grown MgH <sub>2</sub> thin films by activated reactive evaporation. <b>2008</b> , 516, 4351-4359		38
2319	The effect of the hysteresis band on power management strategies in a stand-alone power system. <b>2008</b> , 33, 1537-1550		67
2318	Depth profiling of Mg by 2010keV resonance of <sup>24</sup> Mg(p,p <sup>+</sup> ) <sup>24</sup> Mg nuclear reaction. <b>2008</b> , 266, 3281-3289		8
2317	Activation of water reduction in the presence of REM salts in aqueous solution. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> ,	6.7	1
2316	Microchip power compensated calorimetry applied to metal hydride characterization. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 2729-2737	6.7	5

2315	Material-based hydrogen storage?. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 4424-4426	6.7	17
2314	Long-term stability of sodium borohydrides for hydrogen generation. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 5629-5635	6.7	50
2313	Hydrogenation of Mg and two chosen MgNi alloys. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 7464-7470	6.7	14
2312	Hydrogenation properties of MgAl alloys. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 7489-7497	6.7	123
2311	Structural transitions induced by hydrogen absorption in metallic hydrides. <b>2008</b> , 223,		5
2310	Hydrogen Adsorption on Lithium-Functionalized Calixarenes: A Computational Study. <b>2008</b> , 112, 19676-19679		23
2309	Convenient synthesis of deuterated aluminium hydrides. <b>2008</b> , 59, 515-517		3
2308	Structural and hydrogen absorption/desorption properties of YNi <sub>4</sub> Al <sub>x</sub> Mg compounds (with 0 ≤ x ≤ 5). <b>2008</b> , 461, 228-234		19
2307	Reduction of hydrogen desorption temperature of ball-milled MgH <sub>2</sub> by NbF <sub>5</sub> addition. <b>2008</b> , 464, 377-382		48
2306	Investigation of the thermodynamics governing metal hydride synthesis in the molten state process. <b>2008</b> , 465, 41-46		3
2305	Materials for hydrogen storage: current research trends and perspectives. <b>2008</b> , 668-81		563
2304	Influence of Surface Reactions on Complex Hydride Reversibility. <b>2008</b> , 112, 18270-18279		4
2303	Hydrogen Storage Properties of Space-Confined NaAlH <sub>4</sub> Nanoparticles in Ordered Mesoporous Silica. <b>2008</b> , 20, 3954-3958		155
2302	Magnesium hydride for hydrogen storage. <b>2008</b> , 357-380		4
2301	Nanomaterials for Hydrogen Storage Applications: A Review. <b>2008</b> , 2008, 1-9		121
2300	Hydrogen-based Autonomous Power Systems. <b>2008</b> ,		4
2299	The formation of MgH(2) nanowires during the hydrogenation of Ti-doped Mg film. <b>2008</b> , 19, 465602		6
2298	The effect of Ti doping on the growth of Mg nanostructures by oblique angle codeposition. <b>2008</b> , 92, 063107		39

2297	Hydrogenation of Mg film and Mg nanoblade array on Ti coated Si substrates. <b>2008</b> , 93, 163114	20
2296	Synergy on catalytic effect of Fe/Zr additives mixed in different proportions on the hydrogen desorption from MgH <sub>2</sub> . <b>2009</b> , 94, 204103	4
2295	Mg alloy for hydrogen storage processed by SPD. <b>2009</b> , 100, 1739-1746	53
2294	Hydriding properties of Mg <sub>2</sub> Al <sub>3</sub> Zn quasicrystal powder produced by mechanical alloying. <b>2009</b> , 224, 105-108	1
2293	Metallic properties of magnesium point contacts. <b>2009</b> , 11, 073043	7
2292	Mechanism of Improved Hydrogen Absorption Kinetics in Cast Mg-Ni Alloys. <b>2009</b> , 618-619, 391-394	3
2291	Mechanochemical synthesis of a Mg-Li-Al-H complex hydride. <b>2009</b> , 24, 2880-2885	7
2290	The manifestation of oxygen contamination in ErD <sub>2</sub> thin films. <b>2009</b> , 24, 1868-1879	14
2289	Novel Ultrathin Mg Nanoblades for Hydrogen Storage. <b>2009</b> , 1216, 1	
2288	A metal hydride-polymer composite for hydrogen storage applications. <b>2009</b> , 50, 3140-3146	21
2287	Chemische und physikalische Lösungen für die Speicherung von Wasserstoff. <b>2009</b> , 121, 6732-6757	164
2286	Nanostructured surface coatings for the improvement of AB <sub>5</sub> -type hydrogen storage intermetallics. <b>2009</b> , 33, 1171-1179	29
2285	Chemical and physical solutions for hydrogen storage. <b>2009</b> , 48, 6608-30	1065
2284	Density functional and dynamics study of the dissociative adsorption of hydrogen on Mg (0 0 0 1) surface. <b>2009</b> , 603, 304-310	25
2283	First-principles study of hydrogen storage over Ni and Rh doped BN sheets. <b>2009</b> , 359, 173-178	75
2282	An onboard hydrogen generation method based on hydrides and water recovery for micro-fuel cells. <b>2009</b> , 192, 556-561	10
2281	Development of NiMH-based Fuel Cell/Battery (FCB) system: Characterization of Ni(OH) <sub>2</sub> /MnO <sub>2</sub> positive electrode for FCB. <b>2009</b> , 194, 1150-1155	20
2280	Towards an integrated ceramic micro-membrane network: Electroless-plated palladium membranes in cordierite supports. <b>2009</b> , 340, 109-116	27

2279	3d Transition metal decorated B-C-N composite nanostructures for efficient hydrogen storage: A first-principles study. <b>2009</b> , 32, 353-360		3
2278	Study on hydrogen atom adsorption and diffusion properties on Mg (0001) surface. <b>2009</b> , 52, 1897-1905		10
2277	Study on H <sub>2</sub> Adsorption and Dissociation Properties on Mg(0001) Surface. <b>2009</b> , 38, 1518-1525		11
2276	Nano-engineering of magnesium hydride for hydrogen storage. <b>2009</b> , 86, 889-891		5
2275	Prediction of the thermal conductivity of metal hydrides □The inverse problem. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 7125-7130	6.7	10
2274	Power management strategies for a stand-alone power system using renewable energy sources and hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 7081-7095	6.7	278
2273	Scaling up effects of Mg hydride in a temperature and pressure-controlled hydrogen storage device. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 4602-4610	6.7	25
2272	Scaled-up production of a promising Mg-based hydride for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 4597-4601	6.7	39
2271	AB5/ABS composite material for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 4592-4596	6.7	15
2270	Magnesium borohydride as a hydrogen storage material: Properties and dehydrogenation pathway of unsolvated Mg(BH <sub>4</sub> ) <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 916-928	6.7	188
2269	The desorption kinetics of the Mg(NH <sub>2</sub> ) <sub>2</sub> +LiH mixture. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 1411-1416	6.7	27
2268	Hydrogen dissociation and diffusion on transition metal (= Ti, Zr, V, Fe, Ru, Co, Rh, Ni, Pd, Cu, Ag)-doped Mg(0001) surfaces. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 1922-1930	6.7	269
2267	Hydrogen storage properties of Mg□50vol.%V <sub>7</sub> .4Zr <sub>7</sub> .4Ti <sub>7</sub> .4Ni composite prepared by spark plasma sintering. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 4365-4370	6.7	4
2266	Effect of electrolyte on electrochemical characteristics of MmNi <sub>3.55</sub> Co <sub>0.72</sub> Al <sub>0.3</sub> Mn <sub>0.43</sub> alloy electrode for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 5422-5428	6.7	16
2265	Comment on □Material-based hydrogen storage□ <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 1627-1628	6.7	
2264	Rapid hydrogen charging on metal hydride negative electrode of Fuel Cell/Battery (FCB) systems. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 2058-2061	6.7	12
2263	Hydrogen solid storage: First-principles study of ZrNiH <sub>3</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 4997-5002	6.7	26
2262	Effect of design parameters on enhancement of hydrogen charging in metal hydride reactors. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 2288-2294	6.7	55

2261	Complex hydrides as solid storage materials: First safety tests. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 5981-5985	6.7	22
2260	Direct coupling of an electrolyser to a solar PV system for generating hydrogen. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 2531-2542	6.7	168
2259	Influence of multiple oxide (Cr <sub>2</sub> O <sub>3</sub> /Nb <sub>2</sub> O <sub>5</sub> ) addition on the sorption kinetics of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 3032-3037	6.7	82
2258	Hydrogen absorption processes in Mg <sub>2</sub> Ni-based systems: Thermal and mechanochemical kinetics. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 3026-3031	6.7	16
2257	High pressure cryo-storage of hydrogen by adsorption at 77K and up to 50MPa. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 3058-3064	6.7	28
2256	Indications of the formation of an oversaturated solid solution during hydrogenation of Mg <sub>95</sub> Ni <sub>5</sub> based nanocomposite produced by mechanical alloying. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 5429-5438	6.7	15
2255	Effect of electroless nickel coating on the electrochemical hydrogen storage characteristics of Al and Zr including Mg-based alloys. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 5449-5457	6.7	29
2254	Analysis of hydrogen storage in metal hydride tanks introducing an induced phase transformation. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 5716-5725	6.7	6
2253	Comments on solid state hydrogen storage systems design for fuel cell vehicles. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 6265-6270	6.7	27
2252	Hydrogen energy in changing environmental scenario: Indian context. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 7358-7367	6.7	35
2251	Effect of hydride nucleation rate on the hydrogen capacity of Mg. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 6343-6349	6.7	62
2250	Structural destabilisation of MgH <sub>2</sub> obtained by heavy ion irradiation. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 7275-7282	6.7	26
2249	Impact of synthesis temperature on hydrogen storage and emission from Ni/Ce composite oxides. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 7296-7305	6.7	9
2248	Engineering the Mg <sub>2</sub> Ni eutectic transformation to produce improved hydrogen storage alloys. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 7686-7691	6.7	50
2247	Catalytic mechanism of Nb <sub>2</sub> O <sub>5</sub> and NbF <sub>5</sub> on the dehydriding property of Mg <sub>95</sub> Ni <sub>5</sub> prepared by hydriding combustion synthesis and mechanical milling. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 7707-7713	6.7	19
2246	Mixed-metal Li <sub>3</sub> N-based systems for hydrogen storage: Li <sub>3</sub> AlN <sub>2</sub> and Li <sub>3</sub> FeN <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 8108-8114	6.7	12
2245	Effect of ball milling time on the hydrogen storage properties of TiF <sub>3</sub> -doped LiAlH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 8079-8085	6.7	77
2244	Finite element-based simulation of a metal hydride-based hydrogen storage tank. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 8574-8582	6.7	57

2243	Structural and electrochemical properties of Ti <sub>1.5</sub> Zr <sub>5.5</sub> VxNi <sub>10</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 8695-8706	6.7	27
2242	Modeling and optimization of multi-tubular metal hydride beds for efficient hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 9128-9140	6.7	44
2241	Hydrogen storage in metal hydride tanks equipped with metal foam heat exchanger. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 9393-9401	6.7	101
2240	Real-time measurement of desorption temperature and kinetics of magnesium hydride powder sample based on optical reflection. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 9168-9172	6.7	1
2239	Electrochemical hydrogen storage performance of Mg <sub>1-x</sub> Ti <sub>x</sub> Ni alloys. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 9765-9772	6.7	22
2238	YMgGa as a hydrogen storage compound. <b>2009</b> , 182, 1833-1837		4
2237	A new material for hydrogen storage; ScAl <sub>0.8</sub> Mg <sub>0.2</sub> . <b>2009</b> , 182, 3113-3117		16
2236	The use of hydrogen in the rural sector in Venezuela: Technical and financial study of the storage phase. <b>2009</b> , 34, 1234-1240		6
2235	A review on hydrogen production using aluminum and aluminum alloys. <b>2009</b> , 13, 845-853		352
2234	Development of a soft metal hydride actuator using a laminate bellows for rehabilitation systems. <b>2009</b> , 136, 86-91		33
2233	Hydrogenation of carbon monoxide under mechanical activation conditions. <b>2009</b> , 366, 201-205		13
2232	Carbon nanomaterials as catalysts for hydrogen uptake and release in NaAlH <sub>4</sub> . <b>2009</b> , 9, 1501-5		180
2231	Thermodynamics of hydrogen vacancies in MgH <sub>2</sub> from first-principles calculations and grand-canonical statistical mechanics. <b>2009</b> , 80,		22
2230	Fabrication and hydrogen sorption behaviour of nanoparticulate MgH <sub>2</sub> incorporated in a porous carbon host. <b>2009</b> , 20, 204005		86
2229	Catalytic Mechanism of New TiC-Doped Sodium Alanate for Hydrogen Storage. <b>2009</b> , 113, 20745-20751		40
2228	Microstructural refinement using ball-milling and spark-plasma sintering of MgH <sub>2</sub> based materials for hydrogen storage. <b>2009</b> , 33, 82-88		8
2227	Hydrogen storage in TiCr <sub>1.2</sub> (FeV) <sub>x</sub> BCC solid solutions. <b>2009</b> , 472, 247-251		18
2226	Improving MgH <sub>2</sub> formation kinetics and its effect on NaBH <sub>4</sub> synthesis. <b>2009</b> , 474, 321-325		11

2225	Hydrogen storage in Pd capped thermally grown Mg films: Studies by nuclear resonance reaction analysis. <b>2009</b> , 476, 500-506	22
2224	Effect of substitution of Nd for Mg on the hydrogen storage properties of Mg <sub>2</sub> Ni alloy. <b>2009</b> , 478, 96-102	63
2223	A powder metallurgy approach for the production of a MgH <sub>2</sub> /Al composite material. <b>2009</b> , 478, 273-280	16
2222	The role of Mg <sub>2</sub> Si formation in the hydrogenation of Mg film and Mg nanoblade array on Si substrates. <b>2009</b> , 482, 173-186	11
2221	Comparative studies of the influence of different nano-sized metal oxides on the hydrogen sorption properties of magnesium hydride. <b>2009</b> , 486, 697-701	81
2220	Reversible hydrogen storage in titanium-catalyzed LiAlH <sub>4</sub> /LiBH <sub>4</sub> system. <b>2009</b> , 487, 434-438	49
2219	The dependence of the hydrogen desorption temperature of MgH <sub>2</sub> on its structural and morphological characteristics. <b>2009</b> , 487, 724-729	13
2218	High-pressure structures and vibrational spectra of barium fluoride: Results obtained under nearly hydrostatic conditions. <b>2009</b> , 79,	12
2217	Infrared spectra of mass-selected Mg+H <sub>2</sub> and Mg+D <sub>2</sub> complexes. <b>2009</b> , 113, 199-204	16
2216	The effect of structural and energetic parameters of MOFs and COFs towards the improvement of their hydrogen storage properties. <b>2009</b> , 20, 204030	31
2215	Novel device for simultaneous volumetric and x-ray diffraction measurements on metal-hydrogen systems. <b>2009</b> , 80, 073901	1
2214	Hydrogen storage and cycling properties of a vanadium decorated Mg nanoblade array on a Ti coated Si substrate. <b>2009</b> , 20, 204008	25
2213	Facile cycling of Ti-doped LiAlH <sub>4</sub> for high performance hydrogen storage. <b>2009</b> , 131, 5032-3	87
2212	Organic materials for hydrogen storage applications: from physisorption on organic solids to chemisorption in organic molecules. <b>2009</b> , 2, 480	142
2211	Hydrogen Generation from Chemical Hydrides. <b>2009</b> , 48, 3703-3712	114
2210	Hydrogen storage materials: present scenarios and future directions. <b>2009</b> , 105, 21	80
2209	How intimate contact with nanoporous carbon benefits the reversible hydrogen desorption from NaH and NaAlH <sub>4</sub> . <b>2009</b> , 6261-3	52
2208	A soft metal hydride actuator using LaNi <sub>5</sub> alloy and a laminate film bellows. <b>2009</b> ,	3



2207	Improved hydrogen storage properties of a V decorated Mg nanoblade array. <b>2009</b> , 11, 255-8	20
2206	Hydrogen sorption in metal-polymer composites: The role of interfaces. <b>2009</b> , 105, 083513	10
2205	CHEMISTRY, ELECTROCHEMISTRY, AND ELECTROCHEMICAL APPLICATIONS   Hydrogen. <b>2009</b> , 751-761	2
2204	PEM Fuel Cells: A Mathematical Overview. <b>2009</b> , 70, 369-409	48
2203	First-principles investigation of Mg <sub>2</sub> CoH <sub>5</sub> complex hydride. <b>2009</b> , 19, 205-209	9
2202	Investigation on a three-stage hydrogen thermal compressor based on metal hydrides. <b>2009</b> , 182, 012053	7
2201	Severe plastic deformation of Mg-Fe powders to produce bulk hydrides. <b>2009</b> , 144, 012015	20
2200	Characterization of Ultrathin Membranes to Enable TEM Observation of Gas Reactions at High Pressures. <b>2009</b> ,	5
2199	Ni-MH battery ageing: from comprehensive study to electrochemical modelling for state-of charge and state-of-health estimation. <b>2009</b> , 42, 123-131	
2198	Hydrogen sorption characteristics of magnesium-based composites with addition of Mg <sub>2</sub> Ni <sub>0.7</sub> Co <sub>0.3</sub> and graphite. <b>2010</b> , 8, 737-743	
2197	High capacity hydrogen storage materials: attributes for automotive applications and techniques for materials discovery. <b>2010</b> , 39, 656-75	867
2196	Mg Nanostructures Tailored by Glancing Angle Deposition. <b>2010</b> , 10, 440-448	18
2195	Molecular hydrogen assisted transport of H atoms. <b>2010</b> , 498, 263-269	9
2194	Power generation/energy storage by a fuel cell/battery system: Regeneration of the MnO <sub>2</sub> positive electrode with gaseous oxygen. <b>2010</b> , 55, 8771-8778	9
2193	Renewable energy carriers: Hydrogen or liquid air/nitrogen?. <b>2010</b> , 30, 1985-1990	82
2192	Ab initio investigation of hydrogenation of (BN) <sub>16</sub> : A comparison with that of (BN) <sub>12</sub> . <b>2010</b> , 941, 144-149	22
2191	Processing effects on microstructure in Er and ErD <sub>2</sub> thin-films. <b>2010</b> , 403, 191-197	19
2190	Electrolytic sensor for trace level determination of moisture in gas streams. <b>2010</b> , 43, 1636-1643	3

2189	Enhancement of Ti-Cr-V BCC alloys on the dehydrogenation kinetics of Li-Mg-N-H hydrogen storage materials. <b>2010</b> , 29, 621-624	7
2188	Structure and electrochemical hydrogen storage properties of Pd/Mg <sub>1-x</sub> Al <sub>x</sub> /Pd thin films prepared by pulsed laser deposition. <b>2010</b> , 45, 946-952	3
2187	Keeping the Energy Debate Clean: How Do We Supply the World's Energy Needs?. <b>2010</b> , 98, 42-66	221
2186	Microstructure and hydrogen storage characteristics of melt-spun nanocrystalline Mg <sub>20</sub> Ni <sub>10</sub> Cu <sub>x</sub> (x=0-4) alloys. <b>2010</b> , 124, 795-802	4
2185	Mechanism of hydrogen capacity dependence on the hydrogenation temperature. <b>2010</b> , 62, 274-277	34
2184	Study of the dehydrogenation behavior of magnesium hydride. <b>2010</b> , 63, 58-60	48
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2182	Metal Hydrides. <b>2010</b> , 81-116	8
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2180	Catalytic Solvolysis of Ammonia Borane. <b>2010</b> , 122, 8890-8893	20
2179	Nanoporous metal foams. <b>2010</b> , 49, 4544-65	318
2178	Catalytic solvolysis of ammonia borane. <b>2010</b> , 49, 8708-11	66
2177	Hydrogen desorption energies of Aluminum hydride (AlnH3n) clusters. <b>2010</b> , 405, 3075-3081	12
2176	Electrochemical synthesis of hexagonal closed pack nickel: A hydrogen storage material. <b>2010</b> , 195, 1688-1690	14
2175	Studies on metal hydride electrodes containing no binder additives. <b>2010</b> , 195, 7517-7523	19
2174	Hydrogen production from water decomposition by redox of Fe <sub>2</sub> O <sub>3</sub> modified with single- or double-metal additives. <b>2010</b> , 183, 1075-1082	15
2173	Probing the structure, stability and hydrogen storage properties of calcium dodecahydro-closo-dodecaborate. <b>2010</b> , 183, 1133-1140	54
2172	Homogeneity range and crystal structure of Ni substituted Mg <sub>6</sub> (Pd,Ni) complex intermetallic compounds. <b>2010</b> , 71, 1259-1263	7

2171	Ab initio calculations study of the electronic, optical and thermodynamic properties of NaMgH <sub>3</sub> , for hydrogen storage. <b>2010</b> , 71, 1264-1268		25
2170	Hydrogen storage in Mg: A most promising material. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 5133-5144	6.7	784
2169	Influence of solids retention time on continuous H <sub>2</sub> production using membrane bioreactor. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 52-60	6.7	37
2168	Cryosorption storage of gaseous hydrogen for vehicular application & conceptual design. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 161-168	6.7	14
2167	Studies on dehydrogenation characteristic of Mg(NH <sub>2</sub> ) <sub>2</sub> /LiH mixture admixed with vanadium and vanadium based catalysts (V, V <sub>2</sub> O <sub>5</sub> and VCl <sub>3</sub> ). <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 238-246	6.7	55
2166	Influence of metal powder particle's shape on the kinetics of hydriding. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 253-258	6.7	18
2165	Hydrogen production from solid reactions between MAIH <sub>4</sub> and NH <sub>4</sub> Cl. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 176-180	6.7	14
2164	Ab initio calculations of MgH <sub>2</sub> , MgH <sub>2</sub> :Ti and MgH <sub>2</sub> :Co compounds. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 598-608	6.7	57
2163	The effect of Ti atom on hydrogenation of Al(111) surface: First-principles studies. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 609-613	6.7	18
2162	Cryo-adsorptive hydrogen storage on activated carbon. II: Investigation of the thermal effects during filling at cryogenic temperatures. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 648-659	6.7	33
2161	Partial substitution of hydrogen for conventional fuel in an aircraft by utilizing unused cargo compartment space. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 1463-1473	6.7	12
2160	Safety assessment of envisaged systems for automotive hydrogen supply and utilization. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 1493-1505	6.7	23
2159	A comparative study on effect of microwave sintering and conventional sintering on properties of NdMgNiFe <sub>3</sub> O <sub>4</sub> hydrogen storage alloy. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 8310-8316	6.7	21
2158	Rehydrogenation performance of an MgH <sub>2</sub> /Nb <sub>2</sub> O <sub>5</sub> system modified by heptane and acetone. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 8289-8294	6.7	9
2157	Catalytic effect of halide additives ball milled with magnesium hydride. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 1706-1712	6.7	151
2156	Stages of mechanical alloying during the synthesis of Sn-containing AB <sub>5</sub> -based intermetallics. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 6057-6062	6.7	12
2155	The dehydrogenation performance and reaction mechanisms of Li <sub>3</sub> AlH <sub>6</sub> with TiF <sub>3</sub> additive. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 4554-4561	6.7	26
2154	Hydrogen sorption in transition metal modified mesoporous materials. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 2351-2360	6.7	45

- 2153 An electrochemical investigation of melt-spun nanocrystalline  $Mg_{20}Ni_{10}Cu_x$  ( $x = 0-4$ ) electrode alloys. *International Journal of Hydrogen Energy*, **2010**, 35, 2385-2392 6.7 8
- 2152 Effects of NbF<sub>5</sub> addition on the hydrogen storage properties of LiAlH<sub>4</sub>. *International Journal of Hydrogen Energy*, **2010**, 35, 2361-2367 6.7 95
- 2151 A Calphad-type equation of state for hydrogen gas and its application to the assessment of Rh-H system. *International Journal of Hydrogen Energy*, **2010**, 35, 2104-2111 6.7 13
- 2150 Hydrogen storage properties of destabilized MgH<sub>2</sub>-Li<sub>3</sub>AlH<sub>6</sub> system. *International Journal of Hydrogen Energy*, **2010**, 35, 8122-8129 6.7 35
- 2149 Numerical simulation of temperature rise within hydrogen vehicle cylinder during refueling. *International Journal of Hydrogen Energy*, **2010**, 35, 8092-8100 6.7 64
- 2148 New efficient hydrogen process production from organosilane hydrogen carriers derivatives. *International Journal of Hydrogen Energy*, **2010**, 35, 3401-3405 6.7 19
- 2147 HfNi and its hydrides: First principles calculations. *International Journal of Hydrogen Energy*, **2010**, 35, 3572-3577 6.7 16
- 2146 The role of differently distributed vanadium nanocatalyst in the hydrogen storage of magnesium nanostructures. *International Journal of Hydrogen Energy*, **2010**, 35, 4162-4170 6.7 20
- 2145 Thermochemical transformations in 2MNH<sub>2</sub>-MgH<sub>2</sub> systems (M = Li or Na). *International Journal of Hydrogen Energy*, **2010**, 35, 4562-4568 6.7 26
- 2144 Hydrogen storage properties of spark generated palladium nanoparticles. *International Journal of Hydrogen Energy*, **2010**, 35, 5479-5489 6.7 55
- 2143 Hydrogen-induced transformation superplasticity in zirconium. *International Journal of Hydrogen Energy*, **2010**, 35, 5708-5713 6.7 10
- 2142 Effect of temperature on activated carbon nanotubes for hydrogen storage behaviors. *International Journal of Hydrogen Energy*, **2010**, 35, 6757-6762 6.7 60
- 2141 Hydrogen patent portfolios in the automotive industry: The search for promising storage methods. *International Journal of Hydrogen Energy*, **2010**, 35, 6784-6793 6.7 36
- 2140 Hydrogen desorption from LiBH<sub>4</sub> destabilized by chlorides of transition metal Fe, Co, and Ni. *International Journal of Hydrogen Energy*, **2010**, 35, 7288-7294 6.7 70
- 2139 Effects of exit-pressure variation on the hydrogen supply characteristics of metal hydride reactors. *International Journal of Hydrogen Energy*, **2010**, 35, 8597-8608 6.7 2
- 2138 System simulation model for high-pressure metal hydride hydrogen storage systems. *International Journal of Hydrogen Energy*, **2010**, 35, 8742-8754 6.7 41
- 2137 Synthesis and characterization of layered FePS<sub>3</sub> for hydrogen uptake. *International Journal of Hydrogen Energy*, **2010**, 35, 7827-7834 6.7 24
- 2136 Maximizing the hydrogen yield in the catalyzed hydrolysis of pure borohydride powders. *International Journal of Hydrogen Energy*, **2010**, 35, 8621-8625 6.7 9

2135	Hydrogen storage in magnesium based-composite hydride through hydriding combustion synthesis. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 9641-9645	6.7	21
2134	Experimental investigation on lithium borohydride hydrolysis. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 11071-11076	6.7	25
2133	On the selection of metal foam volume fraction for hydriding time minimization of metal hydride reactors. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 11052-11063	6.7	15
2132	Ignition propensity of hydrogen/air mixtures impinging on a platinum stagnation surface. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 11412-11423	6.7	13
2131	Renewable carbohydrates are a potential high-density hydrogen carrier. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 10334-10342	6.7	57
2130	Hydrogen absorption by metallic thin films detected by optical transmittance measurements. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 10613-10619	6.7	8
2129	The processing of Mg <sub>2</sub> Ni for hydrogen storage; mechanical milling and plasma synthesis. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 10412-10418	6.7	18
2128	Improved hydrogen storage behaviours of nanocrystalline and amorphous Mg <sub>2</sub> Ni-type alloy by Mn substitution for Ni. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 11966-11974	6.7	16
2127	Combinatorial search for hydrogen storage alloys: Mg <sub>2</sub> Ni and Mg <sub>2</sub> Ni <sub>1-x</sub> Al <sub>x</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 11957-11965	6.7	6
2126	Magnesium alloy-graphite composites with tailored heat conduction properties for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 12829-12836	6.7	70
2125	Neutron imaging studies of metal-hydride storage beds. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 12837-12845	6.7	10
2124	Ab initio investigation of hydrogenation of endohedral X@(BN) <sub>16</sub> complexes (X=Li <sup>+</sup> , Na <sup>+</sup> , K <sup>+</sup> , Mg <sup>2+</sup> , Ne, O <sub>2</sub> , S <sub>2</sub> , F <sub>2</sub> , Cl <sub>2</sub> ). <b>2010</b> , 953, 1-6		8
2123	Synthesis and characterization of rare examples of stable potassium and arylcalcium triethylboranate complexes. <b>2010</b> , 13, 1466-1469		15
2122	LITHIUM BOROHYDRIDE AS A HYDROGEN STORAGE MATERIAL: A REVIEW. <b>2010</b> , 11, 65-97		5
2121	Hydrogen Storage Using Carbon Nanotubes. <b>2010</b> ,		1
2120	Numerical Simulation of Hydrogen Dynamics at a Mg-MgH <sub>2</sub> Interface. <b>2010</b> , 72, 205-212		1
2119	Bimetallic Fe <sup>IV</sup> catalyzed magnesium films exhibiting rapid and cycleable hydrogenation at 200 °C. <b>2010</b> , 96, 013108		22
2118	Nanostructures of Mg <sub>0.65</sub> Ti <sub>0.35</sub> D <sub>x</sub> studied with x-ray diffraction, neutron diffraction, and magic-angle-spinning H <sub>2</sub> NMR spectroscopy. <b>2010</b> , 81,		26

2117	Hydrogen: A future energy vector for sustainable development. <b>2010</b> , 224, 539-558	46
2116	ELECTRONIC PRINCIPLES OF SOME TRENDS IN PROPERTIES OF METALLIC HYDRIDES. <b>2010</b> , 24, 703-710	6
2115	INVESTIGATING HYDROGEN STORAGE BEHAVIOR OF CARBON NANOTUBES AT AMBIENT TEMPERATURE AND ABOVE BY ION BEAM ANALYSIS. <b>2010</b> , 05, 341-347	9
2114	Thermophysical properties of hydrogenated vanadium-doped magnesium porous nanostructures. <b>2010</b> , 21, 055707	12
2113	Investigation of Hydrogen Storage Capabilities of ZnO-Based Nanostructures. <b>2010</b> , 114, 2560-2565	66
2112	Dopant-vacancy binding effects in Li-doped magnesium hydride. <b>2010</b> , 82,	27
2111	Multiscale simulation and modelling of adsorptive processes for energy gas storage and carbon dioxide capture in porous coordination frameworks. <b>2010</b> , 3, 1469	130
2110	Vacuum-free self-powered parallel electron lithography with sub-35-nm resolution. <b>2010</b> , 10, 2197-201	18
2109	Hydrogen in magnesium: new perspectives toward functional stores. <b>2010</b> , 3, 526	306
2108	Direct borohydride oxidation: mechanism determination and design of alloy catalysts guided by density functional theory. <b>2010</b> , 3, 1262	89
2107	Metal to Semimetal Transition in CaMgSi Crystals Grown from MgAl Flux. <b>2010</b> , 22, 1846-1853	27
2106	LiMgB <sub>2</sub> System for Reversible Hydrogen Storage. <b>2010</b> , 114, 10291-10296	54
2105	Smooth Size Effects in Pd and PdH <sub>x</sub> Nanoparticles. <b>2010</b> , 114, 18085-18090	4
2104	Major Technical Barriers to a Hydrogen Economy <b>2010</b> , 32, 863-876	20
2103	New MgMnNi alloys as efficient hydrogen storage materials. <b>2010</b> , 18, 1579-1585	32
2102	A new pseudo-binary Mg <sub>6</sub> Ni <sub>0.5</sub> Pd <sub>0.5</sub> intermetallic compound stabilised by Pd for hydrogen storage. <b>2010</b> , 495, 663-666	13
2101	Electrochemical hydrogen storage characteristics of nanocrystalline Mg <sub>20</sub> Ni <sub>10</sub> □ <sub>x</sub> Cu <sub>x</sub> (x=0□) alloys prepared by melt-spinning. <b>2010</b> , 491, 589-594	17
2100	Hydrogen sorption in crystalline and amorphous MgCu thin films. <b>2010</b> , 492, 745-750	8

2099	Hydrogen desorption kinetics of melt-spun and hydrogenated Mg <sub>90</sub> Ni <sub>10</sub> and Mg <sub>80</sub> Ni <sub>10</sub> Y <sub>10</sub> using in situ synchrotron, X-ray diffraction and thermogravimetry. <b>2010</b> , 496, 608-613	53
2098	Microstructural characterization and hydrogenation study of extruded MgFe alloy. <b>2010</b> , 504, S299-S301	16
2097	Effect of TiH <sub>2</sub> and Mg <sub>2</sub> Ni additives on the hydrogen storage properties of magnesium hydride. <b>2010</b> , 499, 35-38	28
2096	Feasibility study of the direct synthesis of Mg(BH <sub>4</sub> ) <sub>2</sub> complex hydrides by mechanical milling. <b>2010</b> , 505, 717-721	12
2095	Controlled shape of magnesium hydride synthesized by chemical vapor deposition. <b>2010</b> , 507, 502-507	12
2094	Dehydrogenation kinetics of magnesium hydride investigated by DFT and experiment. <b>2010</b> , 49, S144-S149	22
2093	First-principles study of the thermodynamic properties and electronic structure of compounds from HfNi phase system. <b>2010</b> , 49, 55-59	7
2092	Ammonia-borane and related compounds as dihydrogen sources. <b>2010</b> , 110, 4079-124	993
2091	Influence of rapid quenching on hydrogen storage characteristics of nanocrystalline Mg <sub>2</sub> Ni-type alloys. <b>2010</b> , 20, 1439-1446	5
2090	Competing expectations: the case of hydrogen storage technologies. <b>2010</b> , 22, 693-709	48
2089	The synthesis and hydrogen storage properties of pure nanostructured Mg <sub>2</sub> FeH <sub>6</sub> . <b>2010</b> , 21, 095706	37
2088	Hydriding and dehydriding properties of HCS Li-Mg-N-H systems. <b>2010</b> ,	
2087	Experimental and theoretical study of neutral Al <sub>m</sub> C <sub>n</sub> and Al <sub>m</sub> C <sub>n</sub> H <sub>x</sub> clusters. <b>2010</b> , 12, 2569-81	40
2086	LiBH <sub>4</sub> in Carbon Aerogel Nanoscaffolds: An NMR Study of Atomic Motions. <b>2010</b> , 114, 4008-4014	79
2085	A systematic neutron reflectometry study on hydrogen absorption in thin Mg <sub>1-x</sub> Al <sub>x</sub> alloy films Special issue on Neutron Scattering in Canada.. <b>2010</b> , 88, 723-728	4
2084	Siting and Mobility of Deuterium Absorbed in Cosputtered Mg <sub>0.65</sub> Ti <sub>0.35</sub> . A MAS 2H NMR Study. <b>2011</b> , 115, 288-297	15
2083	A three-dimensional microporous metal-organic framework with large hydrogen sorption hysteresis. <b>2011</b> , 47, 1204-6	62
2082	Towards a structure-performance relationship for hydrogen storage in Ti-doped NaAlH <sub>4</sub> nanoparticles. <b>2011</b> , 47, 2143-5	9



2081	Electrochemical reduction of CO <sub>2</sub> in a proton conducting solid oxide electrolyser. <b>2011</b> , 21, 195-198	94
2080	Effect of different additives on the hydrogen storage properties of the MgH <sub>2</sub> -LiAlH <sub>4</sub> destabilized system. <b>2011</b> , 1, 408	49
2079	Theoretical Study on Crystal Structure and Hydrogen Storage Properties of Sodium Hydride. <b>2011</b> , 287-290, 1348-1351	
2078	Energy Resources and Systems. <b>2011</b> ,	26
2077	Stability of Elastically Deformed Massive and Nanometer-Sized Pd Hydrides. <b>2011</b> , 115, 12803-12807	1
2076	Hydrogen Electro-Insertion into Pd/Pt(111) Nanofilms: An in Situ Surface X-ray Diffraction Study. <b>2011</b> , 115, 12041-12047	8
2075	Coupled Thermoelectric Model and Effects of Current Fluctuation on Thermal Balance in Magnesium Electrolysis Cell. <b>2011</b> , 25, 2655-2663	8
2074	Metal Alkoxide Functionalization in Metal-Organic Frameworks for Enhanced Ambient-Temperature Hydrogen Storage. <b>2011</b> , 115, 2066-2075	99
2073	Enhanced Hydriding and Dehydriding Kinetics of as-Spun Nanocrystalline Mg <sub>2</sub> Ni-Type Alloy Substituting Ni with Cu. <b>2011</b> , 40, 1693-1698	2
2072	Magnesium nanocrystal-polymer composites: A new platform for designer hydrogen storage materials. <b>2011</b> , 4, 4882	89
2071	Potential Storage Materials. <b>2011</b> , 19-59	4
2070	Hydrogen Energy. <b>2011</b> , 495-629	1
2069	Hydrogen as Future Energy Carrier. <b>2011</b> , 33-70	5
2068	A DFT investigation of the potential of porous cages for the catalysis of ammonia borane dehydrogenation. <b>2011</b> , 47, 11417-9	9
2067	Effect of Titanium Doping of Al(111) Surfaces on Alane Formation, Mobility, and Desorption. <b>2011</b> , 115, 16701-16710	12
2066	Improved hydrogen storage kinetics of nanoconfined NaAlH <sub>4</sub> catalyzed with TiCl <sub>3</sub> nanoparticles. <b>2011</b> , 5, 4056-64	99
2065	Hydrogen Adsorption and Storage. <b>2011</b> , 157-245	3
2064	Advanced hydrogen storage alloys for Ni/MH rechargeable batteries. <b>2011</b> , 21, 4743-4755	386



2063	Nanostructured Materials for Engineering Applications. <b>2011</b> ,	19
2062	In situ high-pressure study of sodium amide by Raman and infrared spectroscopies. <b>2011</b> , 115, 7-13	25
2061	BACK MATTER. <b>2011</b> , 132-196	
2060	Hydrogen Storage Materials. <b>2011</b> ,	112
2059	Recent Progress in Metal Borohydrides for Hydrogen Storage. <b>2011</b> , 4, 185-214	380
2058	Size-dependent hydrogen storage properties of Mg nanocrystals prepared from solution. <b>2011</b> , 133, 10679-81	204
2057	Hydrogen species within the metals: Role of molecular hydrogen ion H <sub>2</sub> <sup>+</sup> . <b>2011</b> , 258, 743-747	22
2056	Influence of magnesium on hydrogenated ScAl <sub>1-x</sub> Mg <sub>x</sub> alloys: A theoretical study. <b>2011</b> , 50, 2848-2853	3
2055	Influence of nano-confinement on the thermodynamics and dehydrogenation kinetics of metal hydrides. <b>2011</b> , 15, 52-61	98
2054	Materials-based hydrogen storage: Attributes for near-term, early market PEM fuel cells. <b>2011</b> , 15, 29-38	84
2053	Microwave-assisted synthesis and characterization of Nd <sub>1.5</sub> Mg <sub>17</sub> Ni <sub>0.5</sub> Fe <sub>3</sub> O <sub>4</sub> hydrogen storage composite. <b>2011</b> , 509, 99-104	15
2052	Hydrogen storage characteristics of nanocrystalline and amorphous Mg <sub>2</sub> Ni-type alloys prepared by melt spinning. <b>2011</b> , 509, 294-300	18
2051	Hydrogen desorption properties of melt-spun and hydrogenated Mg-based alloys using in situ synchrotron X-ray diffraction and TGA. <b>2011</b> , 509, S629-S632	11
2050	Microstructure and hydrogen storage capacity of magnesium hydride with zirconium and niobium fluoride additives after cyclic loading. <b>2011</b> , 509, S616-S620	19
2049	2MgFe alloys processed by hot-extrusion: Influence of processing temperature and the presence of MgO and MgH <sub>2</sub> on hydrogenation sorption properties. <b>2011</b> , 509, S460-S463	19
2048	2MgFe and 2MgFe+5%C mixtures processed by hot extrusion: Influence of carbon on hydrogen sorption properties. <b>2011</b> , 509, S464-S467	6
2047	Structure modification of MgNb films under hydrogen sorption cycles. <b>2011</b> , 509, S572-S575	9
2046	Nanostructured MgH <sub>2</sub> prepared by cold rolling and cold forging. <b>2011</b> , 509, S444-S448	47

2045	Effect of MgNb oxides addition on hydrogen sorption in MgH <sub>2</sub> . <b>2011</b> , 509, S438-S443	23
2044	Deuterium absorption in Mg <sub>70</sub> Al <sub>30</sub> thin films with bilayer catalysts: A comparative neutron reflectometry study. <b>2011</b> , 509, 5466-5471	5
2043	Effects of cyclic hydriding-dehydriding reactions of Mg <sub>2</sub> Ni alloy on the expansion deformation of a metal hydride storage vessel. <b>2011</b> , 509, 7162-7167	27
2042	Improvement of the hydrogen storage properties and electrochemical characteristics of Ti <sub>0.85</sub> VFe <sub>0.15</sub> alloy by Ce substitution. <b>2011</b> , 509, 9079-9083	11
2041	Thermodynamic functions from lattice dynamic of KMgH <sub>3</sub> for hydrogen storage applications. <b>2011</b> , 509, 8994-8998	10
2040	Kinetics of dehydrogenation of MgH <sub>2</sub> and AlH <sub>3</sub> . <b>2011</b> , 509, S671-S674	35
2039	Influence of Sputtering Gas on Morphological and Optical Properties of Magnesium Films. <b>2011</b> , 27, 51-58	4
2038	Electrochemical hydrogen storage characteristics of nanocrystalline and amorphous Mg <sub>2</sub> Ni-type alloys prepared by melt-spinning. <b>2011</b> , 21, 502-511	9
2037	Study on the structure and hydrogen absorption-desorption characteristics of as-cast and annealed La <sub>0.78</sub> Mg <sub>0.22</sub> Ni <sub>3.48</sub> Co <sub>0.22</sub> Cu <sub>0.12</sub> alloys. <b>2011</b> , 196, 9585-9589	19
2036	Structural characteristics and desorption properties of nanostructured MgH <sub>2</sub> synthesised by high energy mechanical milling. <b>2011</b> , 54, 480-483	5
2035	Decomposition of Magnesium Hydride Fiber Observed Using TEM and In-Situ AFM. <b>2011</b> , 52, 481-485	2
2034	Cooperative Catalysis on the Dehydrogenation of NdCl <sub>3</sub> Doped LiBH <sub>4</sub> -MgH <sub>2</sub> Composites. <b>2011</b> , 52, 647-650	8
2033	Hydrogen-Based Energy Systems: The Storage Challenge. <b>2011</b> , 85-123	1
2032	Improved hydrogen storage properties of Mg <sup>IV</sup> nanoparticles prepared by hydrogen plasma-metal reaction. <b>2011</b> , 196, 9599-9604	56
2031	Preparation and characterization of ordered porous carbons for increasing hydrogen storage behaviors. <b>2011</b> , 184, 2655-2660	27
2030	Sorption and desorption properties of a CaH <sub>2</sub> /MgB <sub>2</sub> /CaF <sub>2</sub> reactive hydride composite as potential hydrogen storage material. <b>2011</b> , 184, 3104-3109	9
2029	Decomposition pathway of Mg(BH <sub>4</sub> ) <sub>2</sub> under pressure: Metastable phases and thermodynamic parameters. <b>2011</b> , 64, 225-228	32
2028	High-pressure torsion of pure magnesium: Evolution of mechanical properties, microstructures and hydrogen storage capacity with equivalent strain. <b>2011</b> , 64, 880-883	196

2027	Hydrogen effect on the morphology and structure of 3D porous titanium in the HFCVD-diamond growth environment. <b>2011</b> , 62, 995-999		4
2026	Improved activation and hydrogen storage properties of a Mg <sub>85</sub> Ni <sub>15</sub> melt-spun alloy via surface treatment with NH <sub>4</sub> <sup>+</sup> solution. <b>2011</b> , 130, 937-942		4
2025	Synthesis of a nanostructured MgH <sub>2</sub> /Ti alloy composite for hydrogen storage via combined vacuum arc remelting and mechanical alloying. <b>2011</b> , 65, 1120-1122		17
2024	Transformation mechanism of a H <sub>2</sub> molecule from physisorption to chemisorption in pristine and B-doped C <sub>20</sub> fullerenes. <b>2011</b> , 511, 393-398		21
2023	Hydrogenation properties of Hf/Ni intermetallics [Experimental and theoretical investigation. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 10771-10778	6.7	6
2022	Hydrogen storage measurements in novel Mg-based nanostructured alloys produced via rapid solidification and devitrification. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 10787-10796	6.7	75
2021	Hydrogen storage properties and microstructure of melt-spun Mg <sub>90</sub> Ni <sub>8</sub> RE <sub>2</sub> (RE=Ti, Nd, Gd). <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 10808-10815	6.7	81
2020	Low-temperature cycling of hydrogenation-dehydrogenation of Pd-decorated Mg nanoblades. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 11752-11759	6.7	12
2019	Some approach to possible atmospheric impacts of a hydrogen energy system in the light of the geological past and present-day. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 11216-11228	6.7	8
2018	Improved dehydrogenation of MgH <sub>2</sub> /LiAlH <sub>4</sub> mixture with TiF <sub>3</sub> addition. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 11785-11793	6.7	17
2017	Adjustment of the decomposition path for Na <sub>2</sub> LiAlH <sub>6</sub> by TiF <sub>3</sub> addition. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 12279-12285	6.7	7
2016	Silane-based hydrogen storage materials for fuel cell application: Hydrogen release via methanolysis and regeneration by hydride reduction from organosilanes. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 12305-12312	6.7	23
2015	Modeling and analyzing the hydriding kinetics of Mg/LaNi <sub>5</sub> composites by Chou model. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 12892-12901	6.7	26
2014	Hydrogen absorption enhancement of nanocrystalline Li <sub>3</sub> N/Li <sub>2</sub> C <sub>2</sub> composite. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 12902-12908	6.7	5
2013	Effect of several metal chlorides on the thermal decomposition behaviour of Mg(BH <sub>4</sub> ) <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 12313-12318	6.7	50
2012	A new model to describe absorption kinetics of Mg-based hydrogen storage alloys. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 12923-12931	6.7	19
2011	First-principles study of the H <sub>2</sub> splitting processes on pure and transition-metal-doped Al (111) surfaces. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 12742-12752	6.7	9
2010	Intrinsic mechanisms on enhancement of hydrogen desorption from MgH <sub>2</sub> by (001) surface doping. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 12939-12949	6.7	45

2009	Unexpected large hydrogen adsorption by Nb cluster films under mild conditions of pressure and temperature. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 13595-13602	6.7	5
2008	On the application of standard isotherms to hydrogen adsorption in microporous materials. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 14464-14476	6.7	7
2007	Hydrogen absorption kinetics of magnesium fiber prepared by vapor deposition. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 14488-14495	6.7	18
2006	Research progress in LiBH <sub>4</sub> for hydrogen storage: A review. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 14512-14526	6.7	130
2005	Reversible hydrogen-storage at reduced temperatures in the intermetallic compound Mg <sub>6</sub> (Ni,Pd). <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 14496-14502	6.7	7
2004	Surface functionalization-enhanced spillover effect on hydrogen storage of NiB nanoalloy-doped activated carbon. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 13663-13668	6.7	33
2003	Destabilization of LiBH <sub>4</sub> by MH <sub>2</sub> (M = Ce, La) for hydrogen storage: Nanostructural effects on the hydrogen sorption kinetics. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 15231-15238	6.7	37
2002	Direct synthesis of nanocrystalline titanium dioxide/carbon composite and its catalytic effect on NaAlH <sub>4</sub> for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 15652-15657	6.7	14
2001	Theoretical studies on hydrogen adsorption properties of lithium decorated diborene (B <sub>2</sub> H <sub>4</sub> Li <sub>2</sub> ) and diboryne (B <sub>2</sub> H <sub>2</sub> Li <sub>2</sub> ). <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 15681-15688	6.7	11
2000	Dehydrogenation of pure and Ti-doped Na <sub>3</sub> AlH <sub>6</sub> surfaces from first principles calculations. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 15632-15641	6.7	8
1999	Concentration-dependent hydrogen diffusion in hydrogenation and dehydrogenation of vanadium-coated magnesium nanoblades. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 15642-15651	6.7	3
1998	Amorphous and crystalline alloys for reversible hydrogen storage. <b>2011</b> , 2, 452-456		1
1997	Optical properties and electronic structure of YNi <sub>5</sub> & Cu x intermetallic compounds. <b>2011</b> , 111, 808-813		1
1996	Structure and surface layers of Mg-C nanocomposites produced by ball milling. <b>2011</b> , 75, 1462-1467		2
1995	ZnO based advanced functional nanostructures: synthesis, properties and applications. <b>2011</b> , 21, 599-614		177
1994	Structural and H <sub>2</sub> sorption properties of MgH <sub>2</sub> /0 wt%ZrCrM (M = Cu, Ni) nano-composites. <b>2011</b> , 13, 5719-5726		5
1993	Process Optimisation of In Situ H <sub>2</sub> Generation From Ammonia Using Ni on Alumina Coated Cordierite Monoliths. <b>2011</b> , 54, 914-921		8
1992	The method of limited volume electrodes as a tool for hydrogen electroadsorption studies in palladium and its alloys. <b>2011</b> , 15, 2489-2522		16

1991	An on-demand microfluidic hydrogen generator with self-regulated gas generation and self-circulated reactant exchange with a rechargeable reservoir. <b>2011</b> , 11, 569-578		14
1990	Hydrogen absorption and desorption properties of a novel ScNiAl alloy. <b>2011</b> , 104, 235-238		6
1989	Ultrahigh figure-of-merit for hydrogen generation from sodium borohydride using ternary metal catalysts. <b>2011</b> , 196, 69-75		21
1988	Hydrogen desorption properties of MgH <sub>2</sub> /TiCr <sub>1.2</sub> Fe <sub>0.6</sub> nanocomposite prepared by high-energy mechanical alloying. <b>2011</b> , 196, 4604-4608		38
1987	Structure, morphology and hydrogen storage properties of a Ti <sub>0.97</sub> Zr <sub>0.019</sub> V <sub>0.439</sub> Fe <sub>0.097</sub> Cr <sub>0.045</sub> Al <sub>0.026</sub> Mn <sub>1.5</sub> alloy. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 7587-7593	6.7	22
1986	Nanosopic Al <sub>1-x</sub> Ce <sub>x</sub> phases in the NaH + Al + 0.02CeCl <sub>3</sub> system. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 8403-8411	6.7	19
1985	Co-effects of Tm <sub>2</sub> O <sub>3</sub> and porous silica on reversible hydrogen storage in NaAlH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 9091-9097	6.7	11
1984	Hydriding and dehydriding kinetics of nanocrystalline and amorphous Mg <sub>2</sub> Ni <sub>1-x</sub> Mn <sub>x</sub> (x=0-0.4) alloys prepared by melt spinning. <b>2011</b> , 18, 985-992		5
1983	Theoretical study of the interaction between LiNH <sub>2</sub> and HMgH. <b>2011</b> , 111, 675-681		6
1982	The role of palladium in a hydrogen economy. <b>2011</b> , 14, 282-289		312
1981	Research with Neutron and Synchrotron Radiation on Aerospace and Automotive Materials and Components. <b>2011</b> , 13, 637-657		5
1980	Functional Porous Polymers by Emulsion Templating: Recent Advances. <b>2011</b> , 21, 211-225		326
1979	Design and optimization of hydrogen storage units using advanced solid materials: General mathematical framework and recent developments. <b>2011</b> , 35, 1923-1936		17
1978	Theoretical study of beryllium structures analogous to crown ethers. <b>2011</b> , 966, 127-132		3
1977	Microstructure, hydrogenation and optical behavior of Mg <sub>2</sub> Ni multilayer films deposited by magnetron sputtering. <b>2011</b> , 257, 5759-5765		6
1976	Hydrogen generation by splitting water with Al <sub>2</sub> O <sub>3</sub> alloy. <b>2011</b> , 36, 2782-2787		67
1975	Analysis of 3000T class submarines equipped with polymer electrolyte fuel cells. <b>2011</b> , 36, 3138-3147		24
1974	Changes of hydrogen storage properties of MgH <sub>2</sub> induced by boron ion irradiation. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 1184-1189	6.7	26

1973	Hydrogen storage properties of MgH <sub>2</sub> mechanically milled with Fe and SiC. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 549-554	6.7	26
1972	Hydrogen storage properties of Mg-10 wt% Ni alloy co-catalysed with niobium and multi-walled carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 571-579	6.7	54
1971	Chemical hydrogen storage using polynuclear borane anion salts. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 234-239	6.7	23
1970	Reversible hydrogen storage from 6LiBH <sub>4</sub> /MCl <sub>3</sub> (M = Ce, Gd) composites by in-situ formation of MH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 563-570	6.7	40
1969	Synthesis and hydriding/dehydriding properties of nanosized sodium alanates prepared by reactive ball-milling. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 539-548	6.7	12
1968	Effect of processing parameter on hydrogen storage characteristics of as quenched Ti <sub>45</sub> Zr <sub>38</sub> Ni <sub>17</sub> quasicrystalline alloys. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 592-599	6.7	29
1967	Reaction stoichiometry between TiCl <sub>3</sub> and NaAlH <sub>4</sub> in Ti-doped alanate for hydrogen storage: The fate of the titanium species. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 634-638	6.7	13
1966	Ultrasonic irradiation on hydrolysis of magnesium hydride to enhance hydrogen generation. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 1442-1447	6.7	32
1965	Microstructure and hydrogen storage properties of melt-spun Mg <sub>70</sub> Cu <sub>10</sub> Ni <sub>20</sub> alloys. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 1592-1600	6.7	77
1964	Determination of the heat evolved during sodium borohydride hydrolysis catalyzed by Co <sub>3</sub> O <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 1991-1997	6.7	29
1963	Minuscule device for hydrogen generation/electrical energy collection system on aluminum alloy surface. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 2855-2859	6.7	7
1962	Hydrogen storage in MgH <sub>2</sub> coated single walled carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 3007-3015	6.7	17
1961	An energy-efficient air-conditioning system for hydrogen driven cars. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 3215-3221	6.7	23
1960	In situ transmission electron microscopy observation of the decomposition of MgH <sub>2</sub> nanofiber. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 3600-3605	6.7	23
1959	Development of palladium/ceramic membranes for hydrogen separation. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 4498-4506	6.7	46
1958	Exergy analysis of a hybrid solar hydrogen system with activated carbon storage. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 3273-3282	6.7	17
1957	Effect of pressure, composition and temperature characteristics on thermal response and overall reaction rates in a metal hydride tank. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 3529-3536	6.7	25
1956	Synthesis and hydrogen storage properties of ultrafine Mg <sub>2</sub> N particles. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 3515-3520	6.7	59



1955	Hydrogen desorption behavior of vanadium borohydride synthesized by modified mechano-chemical process. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 4993-4999	6.7	8
1954	Hydrogen sorption properties of Ternary Mg <sub>1-x</sub> Nb <sub>x</sub> D phases synthesized by solid-state reaction. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 7932-7936	6.7	16
1953	Differential evolution (DE) strategy for optimization of hydrogen production and utilization in a thermally coupled membrane reactor for decalin dehydrogenation and Fischer-Tropsch synthesis in GTL technology. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 4917-4933	6.7	30
1952	Hydride tank storage system dimensioning on the base of their dynamic behavior. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 7902-7908	6.7	5
1951	Temperature dependence of hydrogen adsorption properties of nickel-doped mesoporous silica. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 5739-5743	6.7	10
1950	High pressure DSC study of hydrogen sorption in MgH <sub>2</sub> /graphite mixtures: Effects of sintering and oxidation. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 5411-5417	6.7	9
1949	Pt <sub>1-x</sub> Ni <sub>x</sub> /Al <sub>2</sub> O <sub>3</sub> and Pt <sub>1-x</sub> Co <sub>x</sub> /Al <sub>2</sub> O <sub>3</sub> catalysts for hydrogen production by dehydrogenation of Jet A-1 fuel: Characterisation and preliminary activity tests. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 5972-5982	6.7	21
1948	Improved hydrogen desorption properties of ammonia borane by Ni-modified metal-organic frameworks. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 6698-6704	6.7	58
1947	Effect of platinum doping of activated carbon on hydrogen storage behaviors of metal-organic frameworks-5. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 8381-8387	6.7	52
1946	Hydrolysis of sodium borohydride in concentrated aqueous solution. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 7416-7422	6.7	29
1945	Kinetics of dehydrogenation of the Mg <sub>1-x</sub> Ti <sub>x</sub> H hydrogen storage system. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 8344-8350	6.7	29
1944	Cyclic properties and ammonia by-product emission of Li/Mg <sub>1-x</sub> Ti <sub>x</sub> H hydrogen storage material. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 8373-8380	6.7	13
1943	Benchmark Quantum Monte Carlo calculation of the enthalpy of formation of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 8388-8391	6.7	4
1942	Characterization of graphite catalytic effect in reactively ball-milled MgH <sub>2</sub> /C and Mg <sub>2</sub> C composites. <i>International Journal of Hydrogen Energy</i> , <b>2011</b> , 36, 9051-9061	6.7	35
1941	Characterisation and hydrogen storage of Pt-doped carbons templated by Pt-exchanged zeolite Y. <b>2011</b> , 142, 716-724		28
1940	Fully reversible hydrogen absorption and desorption reactions with Sc(Al <sub>1-x</sub> Mg <sub>x</sub> ), x=0.0, 0.15, 0.20. <b>2011</b> , 184, 104-108		6
1939	Effects of fine Cr <sub>2</sub> O <sub>3</sub> addition on Mg's hydrogen-storage performance. <b>2011</b> , 17, 167-169		7
1938	Hydrogenation of magnesium nanoblades: The effect of concentration dependent hydrogen diffusion. <b>2011</b> , 98, 081905		10

1937	Optical response of the sodium alanate system: GW0-BSE calculations and thin film measurements. <b>2011</b> , 83,	19
1936	Prediction of a Ca(BH <sub>4</sub> )(NH <sub>2</sub> ) quaternary hydrogen storage compound from first-principles calculations. <b>2011</b> , 84,	15
1935	Inelastic neutron scattering study of the hydrogenated (Zr <sub>55</sub> Cu <sub>30</sub> Ni <sub>5</sub> Al <sub>10</sub> ) <sub>99Y1</sub> bulk metallic glass. <b>2011</b> , 83,	8
1934	Theoretical study of C <sub>60</sub> as catalyst for dehydrogenation in LiBH <sub>4</sub> . <b>2011</b> , 22, 335401	21
1933	Synthesis of Mg (NH <sub>2</sub> ) <sub>2</sub> and Hydrogen Storage Properties of Mg (NH <sub>2</sub> ) <sub>2</sub> LiH System. <b>2011</b> , 347-353, 3609-3615	
1932	UV Photoactivation of Nano/Micro Porous Plant-Derived Carbon and Application to CO <sub>2</sub> Gas Adsorption. <b>2011</b> , 3, 292-301	1
1931	Modified Magnesium Hydride and Calcium Borohydride for High-Capacity Thermal Energy Storage. <b>2011</b> ,	
1930	Acoustic emission monitoring of activation behavior of LaNi hydrogen storage alloy. <b>2011</b> , 12, 045004	5
1929	Catalytic influence of Ni-based additives on the dehydrogenation properties of ball milled MgH <sub>2</sub> . <b>2011</b> , 26, 2725-2734	8
1928	THE EFFECT OF HYDROGEN ON THE MAGNETIC PROPERTIES OF FeV SUPERLATTICE. <b>2011</b> , 25, 2239-2248	4
1927	Renewable Hydrogen Carrier [Carbohydrate]: Constructing the Carbon-Neutral Carbohydrate Economy. <b>2011</b> , 4, 254-275	24
1926	Experimental and theoretical studies of neutral Mg <sub>m</sub> C <sub>n</sub> H <sub>x</sub> and Be <sub>m</sub> C <sub>n</sub> H <sub>x</sub> clusters. <b>2011</b> , 135, 054307	9
1925	Design of Improved Metal-Organic Framework (MOF) H <sub>2</sub> Adsorbents. <b>2011</b> , 3, 2133-2141	7
1924	Superior MgH <sub>2</sub> Kinetics with MgO Addition: A Tribological Effect. <b>2012</b> , 2, 330-343	41
1923	Synthesis and Hydrogen Storage Properties of Magnesium Nanoparticles with Core/Shell Structure. <b>2012</b> , 736, 120-126	1
1922	Hydrogen Adsorption in Zeolite Studied with Sievert and Thermogravimetric Methods. <b>2012</b> , 38, 012060	3
1921	Effects of Substitution of Al and Bi for Ni on Structure and Hydrogen Storage Properties of LaNi <sub>4.7-x</sub> Al <sub>0.3</sub> Bi <sub>x</sub> (\$x=0.1, 0.2, 0.3\$) Alloy. <b>2012</b> , 51, 09MB01	
1920	Air stability of low-temperature dehydrogenation of Pd-decorated Mg blades. <b>2012</b> , 23, 025401	8



1919	Micro-fabricated channel with ultra-thin yet ultra-strong windows enables electron microscopy under 4-bar pressure. <b>2012</b> , 100, 081903	28
1918	Frontiers in Applied Atomic Layer Deposition (ALD) Research. <b>2012</b> , 736, 147-182	3
1917	A study of the correlation between hydrogen content and magnetism in ZnCoO. <b>2012</b> , 111, 07C304	13
1916	In situ real-time diffuse reflection infrared Fourier transform spectroscopy (DRIFTS) study of hydrogen adsorption and desorption on Ir/SiO <sub>2</sub> catalyst. <b>2012</b> , 66, 600-5	5
1915	Electronic Principles of Hydrogen Incorporation and Dynamics in Metal Hydrides. <b>2012</b> , 2, 1261-1282	3
1914	Alkaline Earth Metals: Organometallic Chemistry Update based on the original article by Jacob S. Alexander, Marites Guino-o, Maria Felisa Zuniga, Roger C. Hahn and Karin Ruhlandt-Senge, Encyclopedia of Inorganic Chemistry Second Edition, © 2005, John Wiley & Sons, Ltd.. <b>2012</b> ,	
1913	Threshold character of temperatures on deuterium thermal desorption in Mg-V composite grown atom-by-atom. <b>2012</b> , 38, 012061	1
1912	Mechanochemistry and H-sorption properties of Mg <sub>2</sub> FeH <sub>6</sub> -based nanocomposites. <b>2012</b> , 103, 1147-1154	11
1911	Hydrogen Blended with Gasoline, Diesel, Natural Gas (NGV) as an Alternative Fuel for ICE in Malaysia. <b>2012</b> , 165, 1-5	3
1910	Performance of Cu-coated vanadium cans for in situ neutron powder diffraction experiments on hydrogen storage materials. <b>2012</b> , 45, 902-905	5
1909	Manipulation of Hydrogen Binding Energy and Desorption Kinetics by Boron Doping of High Surface Area Carbon. <b>2012</b> , 116, 26138-26143	7
1908	Crystal Structure of a Lightweight Borohydride from Submicrometer Crystallites by Precession Electron Diffraction. <b>2012</b> , 24, 3401-3405	17
1907	Influence of the substitution of V by Nb in the structure and properties of hydrogen absorption/desorption of TiCr <sub>1.1</sub> V <sub>0.9</sub> alloy. <b>2012</b> , 536, S231-S235	9
1906	Influence of cerium (III) ions on corrosion and hydrogen evolution of carbon steel in acid solutions. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 19219-19230	6.7 16
1905	Low-energy structures of zinc borohydride Zn(BH <sub>4</sub> ) <sub>2</sub> . <b>2012</b> , 86,	26
1904	Significantly Improved Dehydrogenation of LiAlH <sub>4</sub> Destabilized by MnFe <sub>2</sub> O <sub>4</sub> Nanoparticles. <b>2012</b> , 116, 11939-11945	70
1903	Synthesis, characterization, and hydrogen storage study by hydrogen spillover of MIL-101 metal organic frameworks. <b>2012</b> , 18, 483-491	22
1902	Effect of aluminum on solubility and phase stability of vanadium-hydrogen system. <b>2012</b> , 35, 191-195	13

1901	Optimizing preparation of carbon supported cobalt catalyst for hydrogen generation from NaBH <sub>4</sub> hydrolysis. <b>2012</b> , 543, 159-166	38
1900	Theoretical prediction of the fundamental properties for the ternary Li <sub>2</sub> PtH <sub>6</sub> and Na <sub>2</sub> PtH <sub>6</sub> . <b>2012</b> , 196, 498-503	3
1899	Studies on the de/re-hydrogenation characteristics of nanocrystalline MgH <sub>2</sub> admixed with carbon nanofibres. <b>2012</b> , 2, 195-201	8
1898	Materials design and modification on amide-based composites for hydrogen storage. <b>2012</b> , 22, 550-560	35
1897	Effects of BaRuO <sub>3</sub> addition on hydrogen desorption in MgH <sub>2</sub> . <b>2012</b> , 536, S216-S221	36
1896	Palladium-free hydrogen sensor based on oxygen-plasma-treated polyaniline thin film. <b>2012</b> , 171-172, 838-845	23
1895	Efficient catalysis by MgCl <sub>2</sub> in hydrogen generation via hydrolysis of Mg-based hydride prepared by hydriding combustion synthesis. <b>2012</b> , 48, 5509-11	40
1894	Effects of Titanium-Containing Additives on the Dehydrogenation Properties of LiAlH <sub>4</sub> : A Computational and Experimental Study. <b>2012</b> , 116, 22327-22335	15
1893	Computationally efficient determination of hydrogen isotope effects on the thermodynamic stability of metal hydrides. <b>2012</b> , 86,	11
1892	Enhanced reversibility of H <sub>2</sub> sorption in nanoconfined complex metal hydrides by alkali metal addition. <b>2012</b> , 22, 13209	29
1891	Improvement of the hydrogen storage kinetics of NaAlH <sub>4</sub> with Ti-loaded high-ordered mesoporous carbons (Ti-OMCs) by melt infiltration. <b>2012</b> , 22, 17183	22
1890	Reactive Milling of Magnesium under Hydrogen Using Transition Metals and their Fluorides as Additives. <b>2012</b> , 194, 232-236	6
1889	An Experimental Study on Hydrogen Storage Capabilities Improvement of the TiFe-H <sub>2</sub> . <b>2012</b> , 34, 1876-1882	7
1888	Improved Dehydrogenation Properties of Ca(BH <sub>4</sub> ) <sub>2</sub> ·nNH <sub>3</sub> (n = 1, 2, and 4) Combined with Mg(BH <sub>4</sub> ) <sub>2</sub> . <b>2012</b> , 116, 21162-21168	31
1887	Synthesis and Characterization of Metal Hydride/Carbon Aerogel Composites for Hydrogen Storage. <b>2012</b> , 2012, 1-9	9
1886	Integrated photoelectrochemical energy storage: solar hydrogen generation and supercapacitor. <b>2012</b> , 2, 981	75
1885	First-Principles Study of Biaxial Strain Effect on Hydrogen Adsorbed Mg (0001) Surface. <b>2012</b> , 116, 14943-14949	1
1884	Dehydrogenation of Ammonia Borane Confined by Low-Density Porous Aromatic Framework. <b>2012</b> , 116, 25694-25700	28

- 1883 High-pressure phases of lithium borohydride LiBH<sub>4</sub>: A first-principles study. **2012**, 86, 16
- 1882 Surface and Particle-Size Effects on Hydrogen Desorption from Catalyst-Doped MgH<sub>2</sub>. **2012**, 116, 20315-20320, 16
- 1881 A theoretical study of the hydrogen-storage potential of (H<sub>2</sub>)<sub>4</sub>CH<sub>4</sub> in metal organic framework materials and carbon nanotubes. **2012**, 24, 424204 10
- 1880 Hydrogen adsorption on activated carbon nanotubes with an atomic-sized vanadium catalyst investigated by electrical resistance measurements. **2012**, 258, 2749-2756 16
- 1879 Dispersion and catalytic ignition of hydrogen leaks within enclosed spaces. *International Journal of Hydrogen Energy*, **2012**, 37, 10405-10415 6.7 0
- 1878 Improvement of the hydrogen storage kinetics of NaAlH<sub>4</sub> with nanocrystalline titanium dioxide loaded carbon spheres (Ti-CSs) by melt infiltration. *International Journal of Hydrogen Energy*, **2012**, 37, 10222-10228 6.7 13
- 1877 Ti-doped LiAlH<sub>4</sub> for hydrogen storage: Rehydrogenation process, reaction conditions and microstructure evolution during cycling. *International Journal of Hydrogen Energy*, **2012**, 37, 10215-10221 6.7 22
- 1876 Nanoconfined mixed Li and Mg borohydrides as materials for solid state hydrogen storage. *International Journal of Hydrogen Energy*, **2012**, 37, 10768-10773 6.7 23
- 1875 Hydrogen storage properties of cold rolled magnesium hydrides with oxides catalysts. **2012**, 512, 33-38 24
- 1874 Mechanochemical transformations in NaNH<sub>2</sub>-MgH<sub>2</sub> mixtures. **2012**, 513, 324-327 15
- 1873 Synergistic hydrogen desorption behavior of magnesium aluminum hydride synthesized by mechano-chemical activation method. **2012**, 525, 126-132 4
- 1872 Synthesis and enhanced hydrogen desorption kinetics of magnesium hydride using hydriding chemical vapor synthesis. **2012**, 529, 102-107 6
- 1871 Hydrogen sorption kinetics of magnesium hydride enhanced by the addition of Zr 8 Ni 21 alloy. **2012**, 530, 111-115 40
- 1870 Structural and elastic properties of LiBH<sub>4</sub> for hydrogen storage applications. **2012**, 534, 20-24 46
- 1869 Improvement of hydrogen storage characteristics of Mg/Mg<sub>2</sub>Ni by alloying: Beneficial effect of In. **2012**, 214, 208-215 19
- 1868 Synthesis and hydrogen storage properties of Mg<sub>10</sub>Al nanoparticles. **2012**, 219, 100-105 21
- 1867 A computational investigation of the role of the iridium dihydrogen pincer complex in the formation of the cyclic pentamer (NH<sub>2</sub>BH<sub>2</sub>)<sub>5</sub>. **2012**, 992, 18-29 11
- 1866 Synthesis of Mg@Mg<sub>17</sub>Al<sub>12</sub> ultrafine particles with superior hydrogen storage properties by hydrogen plasma-metal reaction. **2012**, 22, 19831 49

1865	Hydrogen Storage. <b>2012</b> , 157-177		1
1864	Magnesium Nanocrystals Embedded in a Metal-Organic Framework: Hybrid Hydrogen Storage with Synergistic Effect on Physi- and Chemisorption. <b>2012</b> , 124, 9952-9955		30
1863	Magnesium nanocrystals embedded in a metal-organic framework: hybrid hydrogen storage with synergistic effect on physi- and chemisorption. <b>2012</b> , 51, 9814-7		113
1862	Smart Nanomaterials for Space and Energy Applications. <b>2012</b> , 213-249		
1861	Reactivity studies on [Cp <sub>2</sub> MnX(thf)] <sub>2</sub> : manganese amide and polyhydride synthesis. <b>2012</b> , 3, 2972		23
1860	Adsorption-semiconductor hydrogen sensors based on nanosized tin dioxide with cobalt oxide additives. <b>2012</b> , 174, 39-44		28
1859	Improved Dehydrogenation Properties of Ti-Doped LiAlH <sub>4</sub> : Role of Ti Precursors. <b>2012</b> , 116, 21886-21894		24
1858	Hydrogen Storage Materials. <b>2012</b> , 607-637		7
1857	In situ measurement of alternating current magnetic susceptibility of Pd-hydrogen system for determination of hydrogen concentration in bulk. <b>2012</b> , 83, 075102		10
1856	Some novel molecular frameworks involving representative elements. <b>2012</b> , 14, 14784-802		7
1855	First-Principles Study of LiBH <sub>4</sub> Nanoclusters and Their Hydrogen Storage Properties. <b>2012</b> , 116, 18038-18047	21	
1854	Nanosponges for hydrogen storage. <b>2012</b> , 22, 10134		56
1853	Temperature controlled three-stage catalytic dehydrogenation and cycle performance of perhydro-9-ethylcarbazole. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 12839-12845	6.7	58
1852	The controllable hydrolysis rate for LaMg <sub>12</sub> hydride. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 12358-12364	6.7	35
1851	Variation of activation energy of hydrogen absorption of vanadium as a function of aluminum. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 13429-13436	6.7	34
1850	In-situ synchrotron X-ray diffraction study on the dehydrogenation behavior of NaAlH <sub>4</sub> modified by multi-walled carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 14285-14291	6.7	10
1849	Ageing of Mg-Ni hydrogen storage alloys. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 14257-14264	6.7	9
1848	Experimental investigation of the swelling/shrinkage of a hydride bed in a cell during hydrogen absorption/desorption cycles. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 16031-16041	6.7	34

1847	Hydrogen storage properties of 2MgBe mixtures processed by hot extrusion: Influence of the extrusion ratio. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 15196-15203	6.7	5
1846	Improving the hydrogen storage capacity of metal organic framework by chemical functionalization. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 16070-16077	6.7	25
1845	MgH <sub>2</sub> synthesis during reactive mechanical alloying studied by in-situ pressure monitoring. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 16844-16851	6.7	10
1844	Hydrogen storage properties and mechanisms of the Mg(BH <sub>4</sub> ) <sub>2</sub> NaAlH <sub>4</sub> system. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 17137-17145	6.7	32
1843	NbF <sub>5</sub> additive improves hydrogen release from magnesium borohydride. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 17671-17677	6.7	43
1842	Structural, electronic and thermodynamic properties of ZrCo and ZrCoH <sub>3</sub> : A first-principles study. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 18952-18958	6.7	29
1841	Substrate effects on formation and hydrogenation of MgNi films. <b>2012</b> , 263, 202-209		6
1840	Visualization of deuterium dead layer by atom probe tomography. <b>2012</b> , 67, 903-906		19
1839	High capacity hydrogen storage: Basic aspects, new developments and milestones. <b>2012</b> , 1, 566-589		167
1838	Spectroscopic Identification of Hydrogen Spillover Species in Ruthenium-Modified High Surface Area Carbons by Diffuse Reflectance Infrared Fourier Transform Spectroscopy. <b>2012</b> , 116, 26744-26755		28
1837	Chemical vapor deposition of aluminum nanowires on metal substrates for electrical energy storage applications. <b>2012</b> , 6, 118-25		85
1836	Ab initio study of magnesium and magnesium hydride nanoclusters and nanocrystals: examining optimal structures and compositions for efficient hydrogen storage. <b>2012</b> , 134, 15914-22		40
1835	Low-Temperature Fuel Cell Technology for Green Energy. <b>2012</b> , 1657-1702		4
1834	Excellent Catalytic Effects of Graphene Nanofibers on Hydrogen Release of Sodium alanate. <b>2012</b> , 116, 10861-10866		28
1833	Recent research progress in developing metal-doped porous matrices for hydrogen storage. <b>2012</b> , 61, 2025-2035		0
1832	Photosynthesis-to-fuels: from sunlight to hydrogen, isoprene, and botryococcene production. <b>2012</b> , 5, 5531-5539		128
1831	Remarkable hydrogen storage properties for nanocrystalline MgH <sub>2</sub> synthesised by the hydrogenolysis of Grignard reagents. <b>2012</b> , 14, 11386-97		27
1830	Nanomaterials for renewable hydrogen production, storage and utilization. <b>2012</b> , 22, 522-534		82

1829	Thermodynamic Properties, Hysteresis Behavior and Stress-Strain Analysis of MgH <sub>2</sub> Thin Films, Studied over a Wide Temperature Range. <b>2012</b> , 2, 710-729		17
1828	Magnesium-Nickel alloy for hydrogen storage produced by melt spinning followed by cold rolling. <b>2012</b> , 15, 813-817		12
1827	Soft and Noiseless Actuator Technology Using Metal Hydride Alloys to Support Personal Physical Activity. <b>2012</b> ,		1
1826	Hydrogen absorption/desorption properties in the TiCrV based alloys. <b>2012</b> , 15, 809-812		10
1825	Hydrogen storage in metal-organic frameworks. <b>2012</b> , 112, 782-835		2988
1824	Proposed mechanisms for the catalytic activity of Ti in NaAlH <sub>4</sub> . <b>2012</b> , 112, 2164-78		90
1823	Integrated micro fuel cell with on-demand hydrogen production and passive control MEMS. <b>2012</b> , 12, 735-749		3
1822	Catalytic decomposition of hydrous hydrazine to hydrogen over oxide catalysts at ambient conditions for PEMFCs. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 1133-1139	6.7	31
1821	Dehydrogenation kinetics and catalysis of organic heteroaromatics for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 2715-2722	6.7	81
1820	Transition metal-decorated activated carbon catalysts for dehydrogenation of NaAlH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 2737-2741	6.7	16
1819	Direct synthesis and hydrogen storage characteristics of Mg <sub>2</sub> BH <sub>4</sub> compounds. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 926-931	6.7	8
1818	Hydrogen absorption and optical properties of Pd/Mg thin films prepared by DC magnetron sputtering. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 3772-3778	6.7	29
1817	Fast hydriding Mg <sub>2</sub> ZrMnNi alloy compositions for high capacity hydrogen storage application. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 3671-3676	6.7	16
1816	Effect of cycling on hydrogen storage properties of Ti <sub>2</sub> CrV alloy. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 3677-3682	6.7	31
1815	Synthesis, characterization and hydrogen storage behaviour of AB <sub>2</sub> (ZrFe <sub>2</sub> , Zr(Fe <sub>0.75</sub> V <sub>0.25</sub> ) <sub>2</sub> , Zr(Fe <sub>0.5</sub> V <sub>0.5</sub> ) <sub>2</sub> ) type materials. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 3689-3696	6.7	38
1814	Model-based design of an automotive-scale, metal hydride hydrogen storage system. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 2835-2849	6.7	21
1813	H <sub>2</sub> adsorption mechanism in Mg modified multi-walled carbon nanotubes for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 1919-1926	6.7	46
1812	Effect of V, Nb, Ti and graphite additions on the hydrogen desorption temperature of magnesium hydride. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 1912-1918	6.7	60

1811	The catalytic effect of Fe and Cr on hydrogen and deuterium absorption in Mg thin films. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 3540-3547	6.7	19
1810	Stability of transition metals on Mg(0001) surfaces and their effects on hydrogen adsorption. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 309-317	6.7	43
1809	New compounds in the potassium-aluminium-hydrogen system observed during release and uptake of hydrogen. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 345-356	6.7	21
1808	Development of a hydrogen catalytic heater for heating metal hydride hydrogen storage systems. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 2304-2319	6.7	31
1807	Theoretical analysis of hydrides in solid and hybrid rocket propulsion. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 1760-1769	6.7	59
1806	Numerical modeling and performance evaluation of multi-tubular sodium alanate hydride finned reactor. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 1551-1567	6.7	29
1805	Density functional and bonding study of hydrogen and platinum adsorption on B2-FeTi (111) slab. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 2661-2668	6.7	7
1804	Alanate-borohydride material systems for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 2388-2396	6.7	14
1803	High-rate discharge characteristics of metal hydride modified by electroless nickel plating based on experimental design approach. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 2320-2327	6.7	6
1802	Rapid release of 1.5 equivalents of hydrogen from CO <sub>2</sub> -treated ammonia borane. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 3344-3349	6.7	9
1801	Hydrogen absorption kinetics of V <sub>4</sub> Cr <sub>4</sub> Ti alloy prepared by aluminothermy. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 3283-3291	6.7	34
1800	Effects of the preparative parameters of hydriding combustion synthesis on the properties of Mg <sub>2</sub> Ni <sub>3</sub> as hydrogen storage material. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 4238-4245	6.7	11
1799	Influence of transition metal dopants and temperature on the dehydrogenation and rehydrogenation kinetics of NaAlH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 4194-4200	6.7	7
1798	Hydrogen adsorption on Ce/BNNT systems: A DFT study. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 5090-5099	6.7	41
1797	Lattice contraction of cerium hydrides from first-principles LDA+U calculations. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 5108-5113	6.7	20
1796	Interaction of molecular hydrogen with Ni doped ethylene and acetylene complex. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 5114-5121	6.7	28
1795	First-principles studies of lithium hydride series for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 5784-5789	6.7	10
1794	Lithium hydrazide as a potential compound for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 5750-5753	6.7	5



1793	Assessment of changes in desorption mechanism of MgH <sub>2</sub> after ion bombardment induced destabilization. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 6727-6732	6.7	15
1792	Fabrication and characteristics of cube-post microreactors for methanol steam reforming. <b>2012</b> , 91, 208-213		34
1791	Effects of various operating conditions on the hydrogen absorption processes in a metal hydride tank. <b>2012</b> , 94, 257-269		49
1790	RETRACTED: Hydrogen production from sea water using waste aluminium and calcium oxide. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 7451-7456	6.7	15
1789	Cycle life and hydrogen storage properties of mechanical alloyed Ca <sub>1-x</sub> Zr <sub>x</sub> Ni <sub>5-y</sub> Cr <sub>y</sub> ; (x = 0, 0.05 and y = 0, 0.1). <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 7586-7593	6.7	14
1788	A study on crystal structure, bonding and hydriding properties of TiFeNi intermetallics [Behind substitution of iron by nickel]. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 8408-8417	6.7	29
1787	Porous MgH <sub>2</sub> /C composite with fast hydrogen storage kinetics. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 8370-8378	6.7	26
1786	Direct synthesis of MgH <sub>2</sub> nanofibers from waste Mg. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 8379-8387	6.7	12
1785	Hydrogen storage in rapidly solidified and crystallized MgNi-(Y,La)Pd alloys. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 9716-9721	6.7	19
1784	Exergy analysis of self-ignition combustion synthesis for producing rare-earth-based hydrogen storage alloy. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 9706-9715	6.7	4
1783	Kinetics of thermal decomposition of niobium hydride. <b>2012</b> , 30, 38-41		13
1782	Value-added carbon management technologies for low CO <sub>2</sub> intensive carbon-based energy vectors. <b>2012</b> , 41, 280-297		80
1781	Standalone PV-diesel system vs. PV-H <sub>2</sub> system: An economic analysis. <b>2012</b> , 42, 270-280		25
1780	A study on hydrogen storage and electrochemical properties of La <sub>0.55</sub> Pr <sub>0.05</sub> Nd <sub>0.15</sub> Mg <sub>0.25</sub> Ni <sub>3.5</sub> (Co <sub>0.5</sub> Al <sub>0.5</sub> ) <sub>x</sub> (x=0.0, 0.1, 0.3, 0.5) alloys. <b>2012</b> , 30, 222-227		10
1779	Comparison of commercial and hydriding-combustion-synthesized Mg-hydride. <b>2012</b> , 66, 42-45		8
1778	Hydrogen as an energy carrier: Prospects and challenges. <b>2012</b> , 16, 3024-3033		648
1777	Alloying of Mg/Mg <sub>2</sub> Ni eutectic by chosen non-hydride forming elements: Relation between segregation of the third element and hydride storage capacity. <b>2012</b> , 197, 116-120		12
1776	Tailored heat transfer characteristics of pelletized LiNH <sub>2</sub> MgH <sub>2</sub> and NaAlH <sub>4</sub> hydrogen storage materials. <b>2012</b> , 205, 173-179		33



1775	Accelerated hydrogen desorption from MgH <sub>2</sub> by high-energy ball-milling with Al <sub>2</sub> O <sub>3</sub> . <b>2012</b> , 47, 3577-3584		8
1774	An extended Kissinger equation for near equilibrium solid-gas heterogeneous transformations. <b>2013</b> , 566, 214-217		10
1773	Small-scale reforming of diesel and jet fuels to make hydrogen and syngas for fuel cells: A review. <b>2013</b> , 108, 202-217		102
1772	Preparation of Magnesium-based Hydrogen Storage Materials and Their Effect on the Thermal Decomposition of Ammonium Perchlorate. <b>2013</b> , 38, 629-633		12
1771	Electrochemical hydrogen evolution of multi-walled carbon nanotube/micro-hybrid composite decorated with Ni nanoparticles as catalyst through electroless deposition process. <b>2013</b> , 33, 3173-9		1
1770	Thermal decomposition behaviors of magnesium borohydride doped with metal fluoride additives. <b>2013</b> , 560, 82-88		23
1769	Hydrogen desorption properties of MgH <sub>2</sub> catalysed with NaNH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 12223-12229	6.7	11
1768	An overview of the kinetics and catalysis of hydrogen storage on organic liquids. <b>2013</b> , 91, 1477-1490		43
1767	Dynamic modeling and simulation of hydrogen supply capacity from a metal hydride tank. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 8813-8828	6.7	32
1766	Hydrogen storage: beyond conventional methods. <b>2013</b> , 49, 8735-51		355
1765	Hydrogen Storage Materials. <b>2013</b> , 377-405		4
1764	The study of the effect of increasing adsorbed hydrogen's atomic percentage on electronic properties of boron-nitride nanotube. <b>2013</b> , 53, 168-172		5
1763	Synthesis of Mg <sub>2</sub> Cu nanoparticles on carbon supports with enhanced hydrogen sorption kinetics. <b>2013</b> , 1, 9983		18
1762	Hydrogen storage properties of Mg-TM (TM = Ti, Fe, Ni) ternary composite powders prepared through arc plasma method. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 8852-8862	6.7	42
1761	Effects of SnO <sub>2</sub> on hydrogen desorption of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 4664-4669	6.7	23
1760	Changes in kinetic parameters of decomposition of MgH <sub>2</sub> destabilized by irradiation with C <sup>2+</sup> ions. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 12199-12206	6.7	3
1759	Effects of synthesis parameters on zeolite templated carbon for hydrogen storage application. <b>2013</b> , 175, 16-24		25
1758	Structural Properties and Reversible Deuterium Loading of MgD <sub>2</sub> -TiD <sub>2</sub> Nanocomposites. <b>2013</b> , 117, 18851-18862		39

1757	Structure and Electrochemical Properties of Rapidly Quenched $Mm_{0.3}Ml_{0.7}Ni_{3.55}Co_{0.75}Mn_{0.4}Al_{0.3}$ Hydrogen Storage Alloy. <b>2013</b> , 22, 848-853		5
1756	Interaction of hydrogen molecules with perfect, defective and scandium doped polycyclic aromatic hydrocarbon structures. <b>2013</b> , 1026, 65-71		2
1755	Block copolymer template-directed synthesis of well-ordered metallic nanostructures. <b>2013</b> , 54, 2591-2605		53
1754	Compressibility and phase transition of intermetallic compound $Fe_2Ti$ . <b>2013</b> , 558, 160-163		10
1753	Characterization of nano-crystalline $Mg_{Ni}Al$ hydrotalcite derived mixed oxides as hydrogen adsorbent. <b>2013</b> , 142, 213-219		9
1752	Absorption and desorption of H by NbMo alloys at high temperature. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 5717-5723	6.7	1
1751	The effects of Si and expanded PTFE substrates on formation and hydrogenation of Mg and $Mg_{III}$ films. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 12172-12179	6.7	2
1750	Enhanced electrochemical performance of $Mg_2Ni$ alloy prepared by rapid quenching in magnetic field. <b>2013</b> , 238, 257-264		15
1749	Electrochemical hydriding of $Mg_{Ni}Mm$ ( $Mm_{III}$ -Mischmetal) alloys as an effective method for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 3030-3040	6.7	8
1748	Hydrogen absorption kinetics in powdered V+80wt.% $LaNi_5$ composite. <b>2013</b> , 580, S179-S182		21
1747	Sodium alanate system for efficient hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 8798-8812	6.7	39
1746	An investigation of hydrogen storage in a magnesium-based alloy processed by equal-channel angular pressing. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 8306-8312	6.7	81
1745	Hydrogen/deuterium storage properties of Pd nanoparticles. <b>2013</b> , 237, 74-79		8
1744	First-principles study of structural, electronic and thermodynamic properties of $EuMg_2$ and $EuMg_2H_6$ . <b>2013</b> , 198, 399-406		3
1743	Catalytic hydrogen adsorption of nano-crystalline hydrotalcite derived mixed oxides. <b>2013</b> , 91, 2639-2647		13
1742	Hydrogen desorption of $Mg_{Mg_2Ni}$ hypo-eutectic alloys in air, Ar, $CO_2$ , $N_2$ and $H_2$ . <b>2013</b> , 580, S140-S143		7
1741	DFT model of hydrogen desorption from $MgH_2$ : The role of iron catalyst. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 15254-15263	6.7	22
1740	Hydrogenation behavior of high-energy ball milled amorphous $Mg_2Ni$ catalyzed by multi-walled carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 16168-16176	6.7	14

1739	Nanocrystalline tungsten hydrides at high pressures. <b>2013</b> , 87,		28
1738	Improvement in hydrogen storage characteristics of Mg-based metal hydrides by doping nonmetals with high electronegativity: A first-principle study. <b>2013</b> , 78, 83-90		18
1737	High-pressure synthesis and characterization of iridium trihydride. <b>2013</b> , 111, 215503		63
1736	Control of hydrogen storage properties of (La,Ce,Nd,Pr)(Ni,Co,Mn,Al) <sub>5</sub> alloys with microstructural parameters. <b>2013</b> , 570, 114-118		15
1735	Effect of Al and Mo substitution on the structural and hydrogen storage properties of CaNi <sub>5</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 2325-2331	6.7	17
1734	Heat and gas transport properties in pelletized hydride-graphite-composites for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 1685-1691	6.7	33
1733	Enhanced reversible hydrogen storage properties of a Mg <sub>2</sub> Ni <sub>3</sub> ternary solid solution. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 10912-10918	6.7	57
1732	Semiconducting ground-state of three polymorphs of Mg <sub>2</sub> NiH <sub>4</sub> from first-principles calculations. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 16471-16476	6.7	7
1731	Electrochemical hydrogen storage of the graphene sheets prepared by DC arc-discharge method. <b>2013</b> , 228, S120-S125		44
1730	Catalytic Application of Carbon-based Nanostructured Materials on Hydrogen Sorption Behavior of Light Metal Hydrides. <b>2013</b> , 129-171		1
1729	Ternary rare-earth transition-metal polyhydride cluster compounds. <b>2013</b> , 19, 8732-5		13
1728	Hydrogen generation by splitting water with Al <sub>3</sub> Ni alloys. <b>2013</b> , 37, 1624-1634		26
1727	Activated carbon from grass: A green alternative catalyst support for water electrolysis. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 10364-10372	6.7	20
1726	Specific features of the electronic structure and spectral properties of NdNi <sub>5-x</sub> Cu <sub>x</sub> compounds. <b>2013</b> , 55, 2191-2195		1
1725	Optical spectroscopy and electronic structure of compounds HoNi <sub>5-x</sub> Al <sub>x</sub> (x = 0, 1, 2). <b>2013</b> , 115, 690-695		2
1724	Hydrogen Storage Properties of the Destabilized 4NaBH <sub>4</sub> /5Mg <sub>2</sub> NiH <sub>4</sub> Composite System. <b>2013</b> , 117, 21105-21111		26
1723	SYNTHESIS AND REACTION KINETICS OF A Mg-Fe-Mn-Ni ALLOY FOR HYDROGEN STORAGE. <b>2013</b> , 200, 718-730		1
1722	Hydrogenation of N-propylcarbazole over supported ruthenium as a new prototype of liquid organic hydrogen carriers (LOHC). <b>2013</b> , 3, 24877		55

1721	Superior hydrogen storage and electrochemical properties of Mg(x)Ni(100-x)/Pd films at room temperature. <b>2013</b> , 42, 13692-7	11
1720	Electrochemical and kinetic study of as-cast and as-quench Mg <sub>2</sub> Ni-type hydrogen storage alloys. <b>2013</b> , 28, 2701-2708	2
1719	First principle investigations of the physical properties of hydrogen-rich MgH <sub>2</sub> . <b>2013</b> , 88, 065704	13
1718	Hydrogen absorption characteristics and structural transformation during the hydrogenation process of Er <sub>3</sub> Ni. <b>2013</b> , 32, 162-166	1
1717	Beneficial effect of carbon on hydrogen desorption kinetics from MgNiTi alloy. <b>2013</b> , 546, 129-137	14
1716	Investigation of the H <sub>2</sub> Cu and Cu <sub>2</sub> H bonds in hydrogenated Cu. <b>2013</b> , 74, 128-134	10
1715	Research of hydrogen generation by the reaction of Al-based materials with water. <b>2013</b> , 222, 188-195	69
1714	Hydrogen absorption kinetics of VAl alloy. <b>2013</b> , 112, 5-10	17
1713	Synthesis and hydrogen absorption kinetics of V <sub>4</sub> Cr <sub>4</sub> Ti alloy. <b>2013</b> , 112, 51-57	22
1712	Impact of metal and anion substitutions on the hydrogen storage properties of M-BTT metal-organic frameworks. <b>2013</b> , 135, 1083-91	128
1711	Facile synthesis and regeneration of Mg(BH <sub>4</sub> ) <sub>2</sub> by high energy reactive ball milling of MgB <sub>2</sub> . <b>2013</b> , 49, 828-30	25
1710	Enhancement of the hydrogen storage capacity of Mg(AlH <sub>4</sub> ) <sub>2</sub> by excess electrons: a DFT study. <b>2013</b> , 15, 1216-21	15
1709	Effect of Nd content on electrochemical performances of nanocrystalline and amorphous (Mg <sub>24</sub> Ni <sub>10</sub> Cu <sub>2</sub> ) <sub>100-x</sub> Ndx (x=0-20) alloys prepared by melt spinning. <b>2013</b> , 23, 3668-3676	15
1708	Studies on the solubility of hydrogen in molten Pb <sub>83</sub> Li <sub>17</sub> eutectic alloy. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 6002-6007	6.7 21
1707	Effect of microsolvation on hydrogen trapping potential of metal ions. <b>2013</b> , 415, 256-268	2
1706	A comparative study for synthesis methods of nano-structured (9Ni <sub>2</sub> Mg <sub>3</sub> ) alloy catalysts and effect of the produced alloy on hydrogen desorption properties of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 16090-16097	6.7 15
1705	Density functional theory study on (Mg(BH <sub>4</sub> )) <sub>n</sub> (n=1-4) clusters as a material for hydrogen storage. <b>2013</b> , 1025, 46-51	4
1704	Electrochemical hydrogen storage performances of the nanocrystalline and amorphous (Mg <sub>24</sub> Ni <sub>10</sub> Cu <sub>2</sub> ) <sub>100-x</sub> Ndx (x=0-20) alloys applied to Ni-MH battery. <b>2013</b> , 31, 1175-1182	3

1703	Ab initio search for global minimum structures of neutral and anionic hydrogenated Li <sub>5</sub> clusters. <b>2013</b> , 418, 14-21		8
1702	Phase and morphology evolution study of ball milled Mg <sub>10</sub> hydrogen storage alloys. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 7070-7076	6.7	35
1701	In situ synchrotron X-ray diffraction study on the improved dehydrogenation performance of NaAlH <sub>4</sub> /Mg(AlH <sub>4</sub> ) <sub>2</sub> mixture. <b>2013</b> , 577, 6-10		4
1700	Investigation of the performance and deactivation behavior of Raney-Ni catalyst in continuous dehydrogenation of cyclohexane under multiphase reaction conditions. <b>2013</b> , 467, 196-201		15
1699	Effects of substituent groups and central metal ion on hydrogen adsorption in zeolitic imidazolate frameworks. <b>2013</b> , 97, 60-66		13
1698	Confinement effects on structural, electronic properties and dehydrogenation thermodynamics of LiBH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 8367-8375	6.7	10
1697	Effects of Rapid Quenching on Structure and Hydrogen Storage Characteristics of Mg <sub>20</sub> Ni <sub>10-x</sub> Mn <sub>x</sub> (x=0-4) Alloys. <b>2013</b> , 42, 1-5		3
1696	Mechanism of activation of TiFe intermetallics for hydrogen storage by severe plastic deformation using high-pressure torsion. <b>2013</b> , 103, 143902		53
1695	Design strategies for metal alkoxide functionalized metal-organic frameworks for ambient temperature hydrogen storage. <b>2013</b> , 171, 103-109		18
1694	Improved hydrogen storage performance of Mg(NH <sub>2</sub> ) <sub>2</sub> /LiH mixture by addition of carbon nanostructured materials. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 8863-8871	6.7	15
1693	Effects of compression ratio on the combustion and emission of a hydrogen enriched natural gas engine under different excess air ratio. <b>2013</b> , 59, 658-665		71
1692	Effect of different sized CeO <sub>2</sub> nano particles on decomposition and hydrogen absorption kinetics of magnesium hydride. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 6221-6225	6.7	37
1691	Grain refining effect of magnetic field on Mg <sub>2</sub> Ni <sub>0.8</sub> Mn <sub>0.2</sub> hydrogen storage alloys during rapid quenching. <b>2013</b> , 112, 535-540		8
1690	A study of Parylene coated Pd/Mg nanoblades for reversible hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 5019-5029	6.7	5
1689	Spectral studies on sulfur poisoning of Pd/Mg <sub>6</sub> Ni by NEXAFS and XPS. <b>2013</b> , 267, 45-47		7
1688	Significant effects of graphite fragments on hydrogen storage performances of LiBH <sub>4</sub> : A first-principles approach. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 13717-13727	6.7	12
1687	First-principles calculations on elastic, electronic and optical properties for the alkaline platinum hydrides A <sub>2</sub> PtH <sub>6</sub> (A=K, Rb and Cs). <b>2013</b> , 16, 940-946		4
1686	Hydrogen storage properties of a Mg <sub>10</sub> Te oxide nano-composite prepared through arc plasma method. <b>2013</b> , 580, S167-S170		17

1685	Evaluation of hydrogenation behaviors of MgHxBCZY (Sr(Ce0.9Zr0.1)0.95Yb0.05O3) composites by ball-milling. <b>2013</b> , 580, S247-S250		1
1684	A semi-global reaction rate model based on experimental data for the self-hydrolysis kinetics of aqueous sodium borohydride. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 4024-4033	6.7	12
1683	Hydrogen absorption/desorption behavior of Mg50La20Ni30 bulk metallic glass. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 4670-4674	6.7	5
1682	Poly(4-styrenesulfonic acid-co-maleic acid) stabilized nickel(0) nanoparticles: Highly active and cost effective catalyst in hydrogen generation from the hydrolysis of hydrazine borane. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 14693-14703	6.7	31
1681	Insight into the decomposition pathway of the complex hydride Al3Li4(BH4)13. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 2790-2795	6.7	14
1680	Effect of Mn additions on the microstructure and microhardness of as-cast and rapidly solidified MgNiCu alloy. <b>2013</b> , 367, 70-81		2
1679	Systems based on hypo-eutectic MgMg2Ni alloys for medium to large scale hydrogen storage and delivery. <b>2013</b> , 580, S329-S332		7
1678	Study on LaMg based ternary system for hydrogen storage. <b>2013</b> , 580, S159-S162		15
1677	Thickness effects in hydrogen sorption of Mg/Pd thin films. <b>2013</b> , 580, S175-S178		10
1676	Dynamic measurements of hydrogen reaction with LaNi5Snx alloys. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 7335-7343	6.7	34
1675	An overview on adsorption pairs for cooling. <b>2013</b> , 19, 565-572		101
1674	CO2 reverse selective mixed matrix membranes for H2 purification by incorporation of carbonilica fillers. <b>2013</b> , 1, 945-953		28
1673	Hydrogen sensitivity of sensors based on Co x O y /SnO2/Sb2O5 nanomaterials obtained by the sol-gel method. <b>2013</b> , 87, 265-269		11
1672	First-principles calculations of H, O and OH adsorption on metallic layered supported thin films. <b>2013</b> , 25, 175002		5
1671	Hydrogen storage properties and thermal stability of amorphous Mg70(RE25Ni75)30 alloys. <b>2013</b> , 563, 1-5		12
1670	Anodic deposition of NiOx water oxidation catalysts from macrocyclic nickel(II) complexes. <b>2013</b> , 3, 1725		52
1669	Nonprecious-metal-assisted photochemical hydrogen production from ortho-phenylenediamine. <b>2013</b> , 135, 8646-54		43
1668	Nanotechnology for More Sustainable Manufacturing: Opportunities and Risks. <b>2013</b> , 91-105		2

1667	Recent process and development of metal aminoborane. <b>2013</b> , 8, 1076-89		28
1666	High hydrogen content super-lightweight intermetallics from the Li-Mg-Si system. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 5724-5737	6.7	14
1665	Metal-organic frameworks as platforms for clean energy. <b>2013</b> , 6, 1656		768
1664	Constructing an innovative Bio-Hydrogen Integrated Renewable Energy System. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 15660-15669	6.7	7
1663	Theoretical Investigations of CO <sub>2</sub> and H <sub>2</sub> Sorption in an Interpenetrated Square-Pillared Metal-Organic Material. <b>2013</b> , 117, 9970-9982		35
1662	Ruthenium(II)-Catalyzed Hydrogen Generation from Formic Acid using Cationic, Ammoniomethyl-Substituted Triarylphosphine Ligands. <b>2013</b> , 5, 1126-1132		38
1661	Effect of Ti Intermetallic Catalysts on Hydrogen Storage Properties of Magnesium Hydride. <b>2013</b> , 117, 12973-12980		112
1660	Bridging-hydride influence on the electronic structure of an [FeFe] hydrogenase active-site model complex revealed by XAES-DFT. <b>2013</b> , 42, 7539-54		26
1659	Production of Fe-Ti alloy from mixed ilmenite and titanium dioxide by direct electrochemical reduction in molten calcium chloride. <b>2013</b> , 93, 143-151		56
1658	Kinetic and thermodynamic studies of hydrogen adsorption on titanate nanotubes decorated with a Prussian blue analogue. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 6406-6416	6.7	7
1657	Hydrogen storage systems based on hydride-graphite composites: computer simulation and experimental validation. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 7026-7036	6.7	35
1656	Hydrothermal synthesis, characterization and hydrogen storage of SnS nanorods. <b>2013</b> , 106, 33-36		18
1655	Improving hydrogen storage properties of MgH <sub>2</sub> by addition of alkali hydroxides. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 10932-10938	6.7	16
1654	Template synthesis of low-density gold foams: Density, microstructure and compressive strength. <b>2013</b> , 48, 3499-3504		10
1653	Experimental formula for estimating porosity in a metal hydride packed bed. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 7056-7064	6.7	28
1652	A Round Robin Test exercise on hydrogen absorption/desorption properties of a magnesium hydride based material. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 6704-6717	6.7	38
1651	MgH <sub>2</sub> with different morphologies synthesized by thermal hydrogenolysis method for enhanced hydrogen sorption. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 5746-5757	6.7	29
1650	Study on hydrogen storage properties of Mg nanoparticles confined in carbon aerogels. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 5302-5308	6.7	57



1649	Studies on de/rehydrogenation characteristics of nanocrystalline MgH <sub>2</sub> co-catalyzed with Ti, Fe and Ni. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 2778-2784	6.7	90
1648	Improved reversible hydrogen storage of LiAlH <sub>4</sub> by nano-sized TiH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 2770-2777	6.7	34
1647	Synthesis and hydrogen storage characteristics of MgBH <sub>4</sub> compounds by a gas-solid reaction. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 5309-5315	6.7	6
1646	Study on the hydrogen storage properties of core-shell structured MgBE (RE=Nd, Gd, Er) nano-composites synthesized through arc plasma method. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 2337-2346	6.7	93
1645	Reversible hydrogen storage properties of NaAlH <sub>4</sub> enhanced with TiN catalyst. <b>2013</b> , 566, 137-141		33
1644	Model catalyst studies on hydrogen and ethanol oxidation for fuel cells. <b>2013</b> , 101, 41-58		79
1643	Evaluation of hydrogen sorption models for AB <sub>5</sub> -type metal alloys by employing a gravimetric technique. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 8838-8851	6.7	51
1642	Metal hydride material requirements for automotive hydrogen storage systems. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 9755-9765	6.7	52
1641	Nanostructured Materials for Hydrogen Storage. <b>2013</b> , 259-275		2
1640	Recent advances in the theory of hydrogen storage in complex metal hydrides. <b>2013</b> , 38, 462-472		11
1639	Quantum chemical analysis on hydrogenated Zn <sub>12</sub> O <sub>12</sub> nanoclusters. <b>2013</b> , 16, 122-128		19
1638	Pressure induced phase transitions in TiH <sub>2</sub> . <b>2013</b> , 113, 103512		14
1637	Hydrogen Adsorption and Oxidation on Pt Film: An in Situ Real-Time Attenuated Total Reflection Infrared (ATR-IR) Spectroscopic Study. <b>2013</b> , 117, 12537-12543		11
1636	Phase equilibria in the Mg-Ti-Ni system at 500°C and hydrogenation properties of selected alloys. <b>2013</b> , 32, 167-175		12
1635	Experimental study on the hydrogen charge and discharge rates of metal hydride tanks using heat pipes to enhance heat transfer. <b>2013</b> , 103, 581-587		92
1634	Heating Rate-Dependent Dehydrogenation in the Thermal Decomposition Process of Mg(BH <sub>4</sub> ) <sub>2</sub> ·6NH <sub>3</sub> . <b>2013</b> , 117, 16326-16335		25
1633	First-Principles Study on a Potential Hydrogen Storage Medium of Mg/TiAl Sandwiched Films. <b>2013</b> , 117, 25374-25380		8
1632	Observation of TiH <sub>5</sub> and TiH <sub>7</sub> in Bulk-Phase TiH <sub>3</sub> Gels for Kubas-Type Hydrogen Storage. <b>2013</b> , 25, 4765-4771		10



1631	Hydrogen sorption properties of MgH <sub>2</sub> /NaBH <sub>4</sub> composites. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 12140-12145	6.7	16
1630	Characteristic Features of the Sorption/Desorption of Hydrogen by MgM <sub>2</sub> Ni (M = Al, Mn, Ti) Ternary Alloys. <b>2013</b> , 49, 159-169		10
1629	Status and Development in Hydrogen Transport and Storage for Energy Applications. <b>2013</b> , 1, 501-511		40
1628	Structural study and dehydrogenation mechanisms of a novel mixed metal amidoborane: Sodium magnesium amidoborane. <b>2013</b> , 590, 27-34		7
1627	Hydrogen Embrittlement of Magnesium and Magnesium Alloys: A Review. <b>2013</b> , 160, C168-C178		63
1626	Hydrogen solid solution thermodynamics of V <sub>1-x</sub> Al <sub>x</sub> (x: 0, 0.18, 0.37, 0.52) alloys. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 9928-9934	6.7	20
1625	Status of energy storage options for electricity from nuclear power plants. <b>2013</b> ,		1
1624	Thermodynamic and kinetic destabilization of magnesium hydride using Mg-In solid solution alloys. <b>2013</b> , 135, 10982-5		83
1623	High Energy Density Storage Using In-Situ Hydrogen Production. <b>2013</b> ,		0
1622	Preparation of Mg <sub>2</sub> FeH <sub>6</sub> Nanoparticles for Hydrogen Storage Properties. <b>2013</b> , 2013, 1-7		7
1621	Thermodynamic Property Study of Nanostructured Mg-H, Mg-Ni-H, and Mg-Cu-H Systems by High Pressure DSC Method. <b>2013</b> , 2013, 1-7		10
1620	Hydrogen Absorptivity-Desorptivity of Mg Doped by Ni, Cu, Al Produced by Mechanical Alloying. <b>2013</b> , 789, 37-41		
1619	Hydrogen Adsorption Properties of Nano- and Microstructures of ZnO. <b>2013</b> , 2013, 1-6		13
1618	First-Principles Studies on the Structures and Properties of Ti- and Zn-Substituted Mg <sub>2</sub> Ni Hydrogen Storage Alloys and their Hydrides. <b>2013</b> , 743-744, 44-52		6
1617	Hydriding Characterization of La <sub>2</sub> Mg <sub>17</sub> -Ni Composite Materials by Mechano-Synthesis. <b>2013</b> , 652-654, 98-101		3
1616	Influence of structure of activated carbon with superhigh specific surface area on hydrogen storage capacity. <b>2013</b> , 28, 605-610		3
1615	Synthesis and formation process of Al <sub>2</sub> CuH <sub>x</sub> : A new class of interstitial aluminum-based alloy hydride. <b>2013</b> , 1, 032113		17
1614	Hydrogen storage properties of Ti <sub>1-x</sub> Sc <sub>x</sub> MnCr Laves phase alloys. <b>2013</b> , 37, 686-697		17

- 1613 Electrochemical Hydrogen Storage Kinetics of the Asmelt  $\text{La}_{0.75-x}\text{M}_x\text{Mg}_{0.25}\text{Ni}_{3.2}\text{Co}_{0.2}\text{Al}_{0.1}$  (M=Zr, Pr; x=0-0.2) Alloys Applied to Ni-MH Battery. **2013**, 1829-1836
- 1612 Synthesis, characterization and hydrogen sorption studies of mixed sodium-potassium alanate. **2013**, 48, 520-531 5
- 1611 Effects of Li doping on H-diffusion in  $\text{MgH}_2$ : A first-principles study. **2013**, 114, 243502 11
- 1610 Thermodynamic stability of alkali-metal/zinc double-cation borohydrides at low temperatures. **2013**, 88, 27
- 1609 WITHDRAWN: Carbon nanomaterials as catalysts for hydrogen uptake and release by nanocrystalline  $\text{MgH}_2$ . **2013**, 1
- 1608 Dehydrogenation of dodecahydro-N-ethylcarbazole on Pt(111). **2013**, 6, 974-7 55
- 1607 Reversible hydrogen evolution and oxidation mediated by molecular ion. **2013**,
- 1606 One-pot palladium-catalyzed borrowing hydrogen synthesis of thioethers. **2013**, 19, 17464-71 26
- 1605 Mathematical model of metal-hydride phase change applied to Yttrium. **2013**, 461, 012042
- 1604 Hydrogen Storage Performances of  $\text{Mg}_{20}\text{Ni}_{10}\text{-XMX}$  (M=CU, CO, MN; X=0-4) Alloys Prepared by Melt Spinning. **2013**, 85-93
- 1603 Hydrogen absorption study of ti-based alloys performed by melt-spinning. **2013**, 16, 679-682 13
- 1602 Fe-Ti Alloy Production from Mixed Ilmenite and Titanium Dioxide by Direct Electrolytic Reduction in Molten Calcium Chloride Electrolyte. **2013**, 2331-2343
- 1601 Thermodynamic modeling of hydrogen storage capacity in Mg-Na alloys. **2014**, 2014, 190320 9
- 1600 Hydrogen-Based Energy Systems: The Storage Challenge. **2014**, 85-123
- 1599 . **2014**, 3
- 1598 Exploring several different routes to produce Mg- based nanomaterials for Hydrogen storage. **2014**, 63, 012115 4
- 1597 . **2014**, 11
- 1596 Formic Acid Dehydrogenation Catalysed by Tris(TPPTS) Ruthenium Species: Mechanism of the Initial Fast Cycle. **2014**, 6, 3146-3152 37

1595	Magnesium Composites with Additions of Oxygen-Stabilized $\beta$ -Zr <sub>4</sub> Fe <sub>2</sub> O <sub>0.5</sub> for Effective Hydrogen Accumulation. <b>2014</b> , 53, 335-342	2
1594	Kinetics and the thermal decomposition of Sodium Alanate in the presence of MnNi <sub>4.5</sub> Al <sub>0.5</sub> nanoparticles. <b>2014</b> , 1, 015501	4
1593	Causes Analysis of Thermal Runaway in Nickel-Cadmium Accumulators. <b>2014</b> , 161, A1360-A1363	11
1592	Hydrogen Storage with Annular LaNi <sub>5</sub> Metal Hydride Pellets. <b>2014</b> , 875-877, 1671-1675	0
1591	Atomistic long-term simulation of heat and mass transport. <b>2014</b> , 73, 242-268	33
1590	Kinetics and Thermodynamics of Nanostructured Mg-Based Hydrogen Storage Materials Synthesized from Metal Nanoparticles. <b>2014</b> , 924, 189-192	5
1589	Practical Experience With a Mobile Methanol Synthesis Device. <b>2014</b> ,	
1588	Electrochemical Behavior of Hydrazine Borane in Methanol Solution. <b>2014</b> , 161, F1171-F1175	1
1587	Finite-size effects: hydrogen in Fe/V(001) superlattices. <b>2014</b> , 113, 046103	26
1586	Eine auf Ru-Katalyse basierende wiederaufladbare Wasserstoffbatterie. <b>2014</b> , 126, 7194-7198	16
1585	Ab initio theoretical investigation of beryllium and beryllium hydride nanoparticles and nanocrystals with implications for the corresponding infinite systems. <b>2014</b> , 16, 14172-82	17
1584	Interaction of electrons with light metal hydrides in the transmission electron microscope. <b>2014</b> , 63, 437-47	5
1583	First-principles screening of complex transition metal hydrides for high temperature applications. <b>2014</b> , 53, 11833-48	16
1582	Modeling and stabilities of Mg/MgH <sub>2</sub> interfaces: A first-principles investigation. <b>2014</b> , 4, 077101	11
1581	Tuning the Thermodynamic Properties of MgH <sub>2</sub> at the Nanoscale via a Catalyst or Destabilizing Element Coating Strategy. <b>2014</b> , 118, 27781-27792	41
1580	Hydrogen storage kinetics of nanocrystalline and amorphous Cu <sub>2</sub> Ni-added Mg <sub>2</sub> Ni-type alloys. <b>2014</b> , 24, 3524-3533	13
1579	Chemical Storage Based on Metal Hydrides and Hydrocarbons. <b>2014</b> , 91-119	
1578	High-temperature activated AB <sub>2</sub> nanopowders for metal hydride hydrogen compression. <b>2014</b> , 38, 477-486	14

1577	Phase Evaluation and its Hydrogen Correlation of the FeAl <sub>3</sub> and FeAl <sub>2</sub> Intermetallic Alloys during Mechanical Ball-Milling with Water. <b>2014</b> , 793, 143-149		3
1576	Hydrogen storage kinetics of as-cast and spun (Mg <sub>24</sub> Ni <sub>10</sub> Cu <sub>2</sub> ) <sub>100-x</sub> Ndx (x = 0-20) alloys. <b>2014</b> , 105, 1159-1165		2
1575	Effect of copper and cobalt impurities on the electronic structure and optical spectra of the intermetallic compound PrNi <sub>5</sub> . <b>2014</b> , 56, 1933-1938		
1574	Hollow nickel-coated silica microspheres containing rhodium nanoparticles for highly selective production of hydrogen from hydrous hydrazine. <b>2014</b> , 2, 18929-18937		47
1573	Enhanced hydrogen reversibility of nanoconfined LiBH <sub>4</sub> /Mg(BH <sub>4</sub> ) <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 9871-9876	6.7	32
1572	Catalytic effect of chlorides compounds on hydrogen sorption properties of magnesium hydride. <b>2014</b> , 615, S715-S718		4
1571	Characterization and first principle study of ball milled Ti/Ni with Mg doping as hydrogen storage alloy. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 9735-9743	6.7	11
1570	Scheme of thermal compression of hydrogen (TCH) using MmNi <sub>4.25</sub> Al <sub>0.75</sub> recovered with ethyl alcohol and handled under non protective atmospheres. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 8577-8581	6.7	4
1569	Effects of F and Cl on the stability of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 877-883	6.7	26
1568	Ab initio study of effects of Al and Y co-doping on destabilizing of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 9254-9261	6.7	18
1567	A comparison study of Mg <sub>2</sub> O <sub>3</sub> and Mg <sub>2</sub> hydrogen storage composite powders prepared through arc plasma method. <b>2014</b> , 615, S684-S688		32
1566	A DFT study of dopant (Zr, Nb) and vacancies on the dehydrogenation on MgH <sub>2</sub> (001) surface. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 1732-1739	6.7	11
1565	Correlation between hydrogen storage properties and textures induced in magnesium through ECAP and cold rolling. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 3810-3821	6.7	49
1564	Ni-doping effect of Mg(0001) surface to use it as a hydrogen storage material. <b>2014</b> , 609, 93-99		10
1563	Synchrotron EXAFS studies of Ti-doped Mg <sub>2</sub> Ni alloy on the cycling behavior. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 13824-13831	6.7	3
1562	The influence of stacking faults on hydrogen storage in TiC <sub>x</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 9262-9266	6.7	5
1561	Reversible hydrogen storage in vapour deposited Mg-5[at.% Pd powder composites. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 4421-4426	6.7	8
1560	Pressure-induced phase transitions in LiBH <sub>4</sub> : Density functional theory calculations. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 9330-9338	6.7	4

1559	Chemically activated fungi-based porous carbons for hydrogen storage. <b>2014</b> , 75, 372-380	83
1558	Crystal structure and hydrogen storage properties of body centered cubic 52Ti $\bar{1}$ 2V $\bar{1}$ 6Cr alloy doped with Zr7Ni10. <b>2014</b> , 607, 251-257	19
1557	Microstructure and tailoring hydrogenation performance of Y-doped Mg <sub>2</sub> Ni alloys. <b>2014</b> , 245, 808-815	30
1556	The Influence of Raw Material Prices on the Development of Hydrogen Storage Materials: The Case of Metal Hydrides. <b>2014</b> , 5, 735-760	2
1555	Preparation and thermal properties of aluminum hydride polymorphs. <b>2014</b> , 99, 127-134	16
1554	Influence of Lattice Defects on the Grain Growth Kinetics of Nanocrystalline Fluorite. <b>2014</b> , 45, 123-128	3
1553	Hydrogen sorption properties of 90 wt% MgH <sub>2</sub> $\bar{1}$ 0 wt% MeSi <sub>2</sub> (Me = Ti, Cr). <b>2014</b> , 49, 2647-2652	7
1552	Crystal and electronic structures of solid M(NH <sub>2</sub> BH <sub>3</sub> ) <sub>n</sub> (M $\bar{1}$ =Li, Na, K) and the decomposition mechanisms. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 21372-21379	6.7 7
1551	Hydrogen storage in porous graphene with Al decoration. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 16244-16251	6.7 75
1550	Solution synthesis of metal oxides for electrochemical energy storage applications. <b>2014</b> , 6, 5008-48	321
1549	Fundamental studies of H <sub>2</sub> interaction with MA <sub>3</sub> clusters [M=Li, Sc, Ti, Zr]. <b>2014</b> , 588, 144-152	5
1548	Influence of Co and Pd on the formation of nanostructured LaMg <sub>2</sub> Ni and its hydrogen reactivity. <b>2014</b> , 582, 647-658	22
1547	Hydrogenation and microstructural properties of hydriding combustion synthesized Mg-Ni-C composite ball-milled with NbF <sub>5</sub> catalyst. <b>2014</b> , 584, 47-55	5
1546	The electrochemical hydrogen storage characteristics of as-spun nanocrystalline and amorphous Mg <sub>20</sub> Ni <sub>10</sub> $\bar{1}$ M <sub>x</sub> (M=Cu, Co, Mn; x = 0 $\bar{1}$ ) alloys. <b>2014</b> , 33, 663-673	7
1545	Desulfurization of Jet-A fuel in a fixed-bed reactor at room temperature and ambient pressure using a novel selective adsorbent. <b>2014</b> , 117, 499-508	31
1544	Storage of molecular hydrogen into ZSM-5 zeolite in the ambient atmosphere by the sealing of the micropore outlet. <b>2014</b> , 79, 1-6	11
1543	Mg-based nanocomposites with improved hydrogen storage performances. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 14262-14274	6.7 36
1542	Rediscovering zeolite mechanochemistry [A pathway beyond current synthesis and modification boundaries. <b>2014</b> , 194, 106-114	33

1541	A First-Principles Study: Structure and Decomposition of Mono-/Bimetallic Ammine Borohydrides. <b>2014</b> , 118, 8271-8279		14
1540	Perspective on hydrogen energy carrier and its automotive applications. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 8482-8494	6.7	232
1539	Structural, morphological, magnetic and hydrogen absorption properties of LaNi <sub>5</sub> alloy: A comprehensive study. <b>2014</b> , 28, 1450079		2
1538	Effects of Ti-based catalysts and synergistic effect of SWCNTs-TiF <sub>3</sub> on hydrogen uptake and release from MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 14255-14261	6.7	40
1537	Effect of carbon type (graphite, CFs and diamond) on the hydrogen desorption of MgH <sub>2</sub> powder mixtures under microwave irradiation. <b>2014</b> , 607, 223-229		8
1536	Hydrogen sorption kinetics of LaNi <sub>5</sub> Bn storage alloys. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 5858-5867	6.7	7
1535	Chemisorption, physisorption and hysteresis during hydrogen storage in carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 1390-1397	6.7	72
1534	Carbon Support Effects on the Hydrogen Storage Properties of LiBH <sub>4</sub> Nanoparticles: A First-Principles Study. <b>2014</b> , 118, 5102-5109		11
1533	Spontaneous H <sub>2</sub> loss through the interaction of squaric acid derivatives and BeH <sub>2</sub> . <b>2014</b> , 20, 5309-16		19
1532	Nano-sized layered Mn oxides as promising and biomimetic water oxidizing catalysts for water splitting in artificial photosynthetic systems. <b>2014</b> , 133, 124-39		26
1531	Superior dehydrogenation performance of nanoscale lithium borohydride modified with fluorographite. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 896-904	6.7	17
1530	Advanced materials for solid state hydrogen storage: Thermal engineering issues <b>2014</b> , 72, 176-189		42
1529	Methanol synthesis from CO <sub>2</sub> and H <sub>2</sub> in multi-tubular fixed-bed reactor and multi-tubular reactor filled with monoliths. <b>2014</b> , 92, 2598-2608		33
1528	A rechargeable hydrogen battery based on Ru catalysis. <b>2014</b> , 53, 7074-8		74
1527	Synthesis, evolution and hydrogen storage properties of ZnV <sub>2</sub> O <sub>4</sub> glomerulus nano/microspheres: A prospective material for energy storage. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 7842-7851	6.7	49
1526	Regenerative Fuel Cells for Energy Storage. <b>2014</b> , 102, 964-975		26
1525	Template-dealloying synthesis of ultralow density Au foams with bimodal porous structure. <b>2014</b> , 4, 7196		22
1524	Preparation of Ferrocene-Based Coordination Polymer Microspheres and Their Application in Hydrogen Storage. <b>2014</b> , 24, 491-500		4

1523	Proceedings of the International Conference on Research and Innovations in Mechanical Engineering. <b>2014</b> ,		1
1522	The use of one-dimensional Niobate to improve MgH <sub>2</sub> hydrogen sorption. <b>2014</b> , 615, S698-S701		4
1521	Cooperative catalysis: electron-rich Fe-H complexes and DMAP, a successful "joint venture" for ultrafast hydrogen production. <b>2014</b> , 9, 2140-7		15
1520	Predictive calculation of the effective thermal conductivity in a metal hydride packed bed. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 9718-9725	6.7	23
1519	Scorpionate-Type Coordination in MFU-4l Metal-Organic Frameworks: Small-Molecule Binding and Activation upon the Thermally Activated Formation of Open Metal Sites. <b>2014</b> , 126, 5942-5946		16
1518	Synthesis and hydrogen storage properties of Mg <sub>10</sub> .6La <sub>0.5</sub> Ni nanoparticles. <b>2014</b> , 246, 277-282		48
1517	Renewable hydrogen economy in Asia Opportunities and challenges: An overview. <b>2014</b> , 30, 743-757		153
1516	An Interrupted In-Situ Method for Electrochemical Formation of Mg-Ni Intermetallics. <b>2014</b> , 259-269		
1515	Effects of TiCl <sub>3</sub> -decorated MWCNTs addition on the dehydrogenation behavior and stability of LiAlH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 20038-20044	6.7	10
1514	Effect of oxygen on the microstructure and hydrogen storage properties of V <sub>0.1</sub> Ti <sub>0.9</sub> Be quaternary solid solutions. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 20000-20008	6.7	18
1513	Hydrogen storage characteristics of magnesium impregnated on the porous channels of activated charcoal scaffold. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 20045-20053	6.7	33
1512	NbN nanoparticles as additive for the high dehydrogenation properties of LiAlH <sub>4</sub> . <b>2014</b> , 43, 1806-13		20
1511	Switching the thermodynamics of MgH <sub>2</sub> nanoparticles through polystyrene stabilisation and oxidation. <b>2014</b> , 4, 39934		12
1510	Hydrogen physisorption in ionic solid compounds with exposed metal cations at room temperature. <b>2014</b> , 4, 33905-33910		6
1509	A comparative study of catalytic dehydrogenation of perhydro-N-ethylcarbazole over noble metal catalysts. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 18976-18983	6.7	94
1508	Effect of metal hydrides on the burning characteristics of boron. <b>2014</b> , 597, 58-64		18
1507	Hydrogen desorption performance of high-energy ball milled Mg <sub>2</sub> NiH <sub>4</sub> catalyzed by multi-walled carbon nanotubes coupling with TiF <sub>3</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 19672-19681	6.7	41
1506	Core-shell Prussian blue analogue molecular magnet Mn(1.5)[Cr(CN) <sub>6</sub> ] <sub>n</sub> H <sub>2</sub> O@Ni(1.5)[Cr(CN) <sub>6</sub> ] <sub>n</sub> H <sub>2</sub> O for hydrogen storage. <b>2014</b> , 6, 17579-88		23



1505	Hydrogen Storage Material Composed of Polyacetylene and LiH and Investigation of Its Mechanisms. <b>2014</b> , 26, 4076-4081		11
1504	Highly efficient bimetal synergetic catalysis by a multi-wall carbon nanotube supported palladium and nickel catalyst for the hydrogen storage of magnesium hydride. <b>2014</b> , 50, 6641-4		32
1503	Size effects and hydrogen storage properties of Mg nanoparticles synthesised by an electroless reduction method. <b>2014</b> , 2, 9718		73
1502	Simulations of hydrogen sorption in rht-MOF-1: identifying the binding sites through explicit polarization and quantum rotation calculations. <b>2014</b> , 2, 2088-2100		44
1501	Determination of effective recombination coefficient by thermodesorption method. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 15819-15826	6.7	8
1500	Interaction mechanism of hydrogen storage materials with layer-by-layer applied protective polyelectrolyte coatings. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 14834-14842	6.7	1
1499	Activation of TiFe for hydrogen storage by plastic deformation using groove rolling and high-pressure torsion: Similarities and differences. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 15589-15594	6.7	78
1498	Influence of K <sub>2</sub> TiF <sub>6</sub> additive on the hydrogen sorption properties of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 15563-15569	6.7	41
1497	Photo-bioelectrochemical Cells for Energy Conversion, Sensing, and Optoelectronic Applications. <b>2014</b> , 1, 1778-1797		48
1496	First-Principles Prediction of Ternary Interstitial Hydride Phase Stability in the ThZrBi System. <b>2014</b> , 59, 3232-3241		2
1495	Hydrogen Storage Materials Comprising Conjugated Hydrocarbon Polymers with LiH: Comparison of Cyclic Durability between LiHPolyacetylene, Poly(p-phenylene), and Poly(diphenylacetylene) and Mechanistic Investigation upon LiHPoly(p-phenylene). <b>2014</b> , 118, 19683-19687		4
1494	Hydrogen Storage Properties of Magnesium Hydride with V-Based Additives. <b>2014</b> , 118, 21778-21784		27
1493	Improved Interaction of Hydrogen on Transition-Metal-Doped Al(100) Stepped Surface. <b>2014</b> , 118, 7442-7450		7
1492	High-pressure torsion of palladium: Hydrogen-induced softening and plasticity in ultrafine grains and hydrogen-induced hardening and embrittlement in coarse grains. <b>2014</b> , 618, 1-8		17
1491	Effect of Cr substitution by Ni on the cycling stability of Mg <sub>2</sub> Ni alloy using EXAFS. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 14858-14867	6.7	7
1490	Steam reforming of iso-octane toward hydrogen production over mono- and bi-metallic CuCo/CeO <sub>2</sub> catalysts: Structure-activity correlations. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 19541-19554	6.7	26
1489	Graphene nanosheets supporting Ru nanoparticles with controlled nanoarchitectures form a high-performance catalyst for CO <sub>x</sub> -free hydrogen production from ammonia. <b>2014</b> , 2, 9185-9192		37
1488	Tracer Film Growth Study of Hydrogen and Oxygen from the Corrosion of Magnesium in Water. <b>2014</b> , 161, C395-C404		26

1487	Carbon dioxide bio-fixation and wastewater treatment via algae photochemical synthesis for biofuels production. <b>2014</b> , 4, 49672-49722		61
1486	High performance FeTi B.1 mass % V alloy for on board hydrogen storage solution. <b>2014</b> , 75, 520-524		43
1485	Phase transitions of actinium dihydride: Pressure-induced charge transfer driving effect. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 15827-15835	6.7	4
1484	Neutron diffraction studies of a four-coordinated hydride in near square-planar geometry. <b>2014</b> , 53, 11140-5		51
1483	Influence of Nickel and Silicon Addition on the Deuterium Siting and Mobility in fcc MgNi Hydride Studied with 2H MAS NMR. <b>2014</b> , 118, 10606-10615		4
1482	Hydrogen Storage Properties of a MgNi Nanocomposite Coprecipitated from Solution. <b>2014</b> , 118, 18401-18411	56	
1481	The effect of hydrogen on the mechanical properties of FeTi for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 12667-12675	6.7	20
1480	Hydrogen storage using Na-decorated graphyne and its boron nitride analog. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 12757-12764	6.7	74
1479	Energy and provision management study: A research activity on fuel cell design and breadboarding for lunar surface applications supported by European Space Agency. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 14079-14096	6.7	7
1478	Catalytic effect of carbon nanostructures on the hydrogen storage properties of MgH <sub>2</sub> /AlH <sub>4</sub> composite. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 14240-14246	6.7	36
1477	Decomposition of H <sub>2</sub> O on clean and oxygen-covered Au (1 0 0) surface: A DFT study. <b>2014</b> , 315, 16-21		20
1476	Reversible de-/hydriding characteristics of a novel Mg <sub>18</sub> In <sub>1</sub> Ni <sub>3</sub> alloy. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 14033-14038	6.7	13
1475	Synthesis of novel ZnV hierarchical nanospheres and their applications as electrochemical supercapacitor and hydrogen storage material. <b>2014</b> , 6, 13635-41		118
1474	Understanding the role of few-layer graphene nanosheets in enhancing the hydrogen sorption kinetics of magnesium hydride. <b>2014</b> , 6, 11038-46		63
1473	Cooperatively enhanced catalytic properties of Ti@Al(100) near-surface alloy for aluminum hydrogenation. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 11963-11975	6.7	1
1472	The role of morphology and severe plastic deformation on the hydrogen storage properties of magnesium. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 12778-12783	6.7	21
1471	Hydrogen storage systems from waste Mg alloys. <b>2014</b> , 270, 554-563		60
1470	Hydrogenation properties of Pd-coated Zr-based Laves phase compounds. <b>2014</b> , 109, 191-196		9

- 1469 First-principles study of structural stability and elastic properties of MgPd<sub>3</sub> and its hydride. **2014**, 2, 165-174 40
- 1468 Development of exfoliated layered stannosilicate for hydrogen adsorption. *International Journal of Hydrogen Energy*, **2014**, 39, 13180-13188 6.7 10
- 1467 Catalytic effect of melt-spun Ni<sub>3</sub>FeMn alloy on hydrogen desorption properties of nanocrystalline MgH<sub>2</sub> synthesized by mechanical alloying. *International Journal of Hydrogen Energy*, **2014**, 39, 17047-17053 6.7 11
- 1466 Design of 3D 1,3,5,7-tetraphenyladamantane-based covalent organic frameworks as hydrogen storage materials. **2014**, 4, 24526-24532 14
- 1465 Solid-State NMR Studies of the Photochromic Effects of Thin Films of Oxygen-Containing Yttrium Hydride. **2014**, 118, 22935-22942 24
- 1464 Additives in protic hydridic hydrogen storage compounds: a molecular study. **2014**, 4, 52785-52795 1
- 1463 Diffusion in Metals and Alloys. **2014**, 387-559 17
- 1462 Li-decorated double vacancy graphene for hydrogen storage application: A first principles study. *International Journal of Hydrogen Energy*, **2014**, 39, 11016-11026 6.7 86
- 1461 Effects of thermal activation conditions on the microstructure regulation of corncob-derived activated carbon for hydrogen storage. **2014**, 23, 601-608 17
- 1460 Microstructures and Hydrogen Desorption Properties of the MgH<sub>2</sub>/AlH<sub>3</sub> Composite with NbF<sub>5</sub> Addition. **2014**, 118, 18908-18916 22
- 1459 Elucidation of Aqueous Solvent-Mediated Hydrogen-Transfer Reactions by ab Initio Molecular Dynamics and Nudged Elastic-Band Studies of NaBH<sub>4</sub> Hydrolysis. **2014**, 118, 21385-21399 35
- 1458 Evaluation of Co, La, and Mn promoted Rh catalysts for autothermal reforming of commercial diesel. **2014**, 154-155, 386-394 25
- 1457 Critical findings during the optimisation of hydrogen storage in vapour grown carbon fibres. *International Journal of Hydrogen Energy*, **2014**, 39, 12690-12700 6.7 2
- 1456 Thermodynamics, structure, and charge state of hydrogen-vacancy complexes in  $\epsilon$ -plutonium. **2014**, 89, 8 8
- 1455 Influences of substituting Ni with M (M=Cu, Co, Mn) on gaseous and electrochemical hydrogen storage kinetics of Mg<sub>20</sub>Ni<sub>10</sub> alloys. **2014**, 21, 1705-1713 3
- 1454 An investigation on electrochemical performances of as-cast and annealed La<sub>0.8</sub>Mg<sub>0.2</sub>Ni<sub>3.3</sub>Co<sub>0.2</sub>Si<sub>x</sub> (x = 0.0-0.2) alloy electrodes for Ni/MH battery application. **2014**, 21, 2125-2135 6
- 1453 Hydrogen storage in proton-conductive perovskite-type oxides and their application. **2014**, 31, 1792-1797 16
- 1452 NbCl<sub>5</sub> and CrCl<sub>3</sub> catalysts effect on synthesis and hydrogen storage performance of Mg<sub>2</sub>NiNiO composites. **2014**, 37, 77-82 3

1451	Scorpionate-type coordination in MFU-4l metal-organic frameworks: small-molecule binding and activation upon the thermally activated formation of open metal sites. <b>2014</b> , 53, 5832-6		93
1450	Development of Ultrafine-Grained Metals by Equal-Channel Angular Pressing. <b>2014</b> , 187-209		6
1449	Synthesis and hydrogen plasma interaction of model mixed materials for fusion. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 17422-17428	6.7	9
1448	Ultra compact direct hydrogen fuel cell prototype using a metal hydride hydrogen storage tank for a mobile phone. <b>2014</b> , 134, 382-391		22
1447	Oxide-Nickel electrodes as hydrogen storage units of high-capacity. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 18962-18965	6.7	14
1446	Reversible hydrogen absorption in a Ti-6Al-4V alloy produced by mechanical alloying. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 15540-15548	6.7	3
1445	Induction thermal plasma synthesis of Mg <sub>2</sub> Ni nanoparticles. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 9859-9864	6.7	11
1444	Characterization of the Dehydrogenation Process of LiBH <sub>4</sub> Confined in Nanoporous Carbon. <b>2014</b> , 118, 8843-8851		21
1443	Hydrogen Storage in Porous Single-Walled Carbon Nanohorns Dispersed with Pd-Ni Alloy Nanoparticles. <b>2014</b> , 118, 3402-3408		38
1442	Ca <sub>54</sub> In <sub>13</sub> B <sub>4</sub> H <sub>23+x</sub> : A Complex Metal Subhydride Featuring Ionic and Metallic Regions. <b>2014</b> , 26, 3202-3208		9
1441	Preparation and electrochemical properties of La-Mg-Ni-based La <sub>0.75</sub> Mg <sub>0.25</sub> Ni <sub>3.3</sub> Co <sub>0.5</sub> multiphase hydrogen storage alloy as negative material of Ni/MH battery. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 8474-8481	6.7	42
1440	Adsorptive desulfurization of liquid Jet-A fuel at ambient conditions with an improved adsorbent for on-board fuel treatment for SOFC applications. <b>2014</b> , 124, 140-146		25
1439	The influence of pre-adsorbed Pt on hydrogen adsorption on B2 FeTi(111). <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 8621-8630	6.7	5
1438	Composite materials of melt-spun Mg <sub>90</sub> Ni <sub>10</sub> and graphite: Microstructural changes during cyclic hydrogenation and the impact on gas and heat transport characteristics. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 8331-8339	6.7	10
1437	Comparative investigation on the hydrogenation/dehydrogenation characteristics and hydrogen storage properties of Mg <sub>3</sub> Ag and Mg <sub>3</sub> Y. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 13616-13621	6.7	38
1436	Investigation of ZrFe <sub>2</sub> -type materials for metal hydride hydrogen compressor systems by substituting Fe with Cr or V. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 21380-21385	6.7	24
1435	Modifying microstructures and hydrogen storage properties of 85 mass% Mg-10 mass% Ni-5 mass% La alloy by ultra-high pressure. <b>2014</b> , 596, 113-117		18
1434	Elucidation of the indirect H <sub>2</sub> interaction in (2 1 1)-H/Pd(3 1 1) and on Pd(1 1 1). <b>2014</b> , 592, 14-17		

1433	Hydrogen storage properties of MgH <sub>2</sub> processed by cold forging. <b>2014</b> , 615, S719-S724		16
1432	First principles study of the ZrX <sub>2</sub> (X=H, D and T) compounds. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 9681-9689	6.7	16
1431	Improvement on the hydrogen storage properties of ZrFe <sub>2</sub> Laves phase alloy by vanadium substitution. <b>2014</b> , 51, 30-36		21
1430	In situ X-ray diffraction study of dehydrogenation of MgH <sub>2</sub> with Ti-based additives. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 5868-5873	6.7	28
1429	Nanostructured Ce-d films for hydrogen applications. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 9854-9858	6.7	3
1428	Highly Improved Gaseous Hydrogen Storage Characteristics of the Nanocrystalline and Amorphous Nd-Ti-added Mg <sub>2</sub> Ni-type Alloys by Melt-Spinning. <b>2014</b> , 30, 1020-1026		7
1427	In situ synchrotron X-ray diffraction study on the dehydrogenation behavior of LiAlH <sub>4</sub> /MgH <sub>2</sub> composites. <b>2014</b> , 599, 164-169		11
1426	NaAlH <sub>4</sub> production from waste aluminum by reactive ball milling. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 9877-9882	6.7	5
1425	Catalytic effect of MWCNTs on the dehydrogenation behavior of LiAlH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 927-933	6.7	18
1424	Electrode properties and the dehydrogenation process of amorphous Mg <sub>91</sub> Ni <sub>9</sub> alloys. <b>2014</b> , 249, 35-41		16
1423	Hydrogen storage properties of pure Mg after the combined processes of ECAP and cold-rolling. <b>2014</b> , 586, S405-S408		36
1422	Thermodynamic Destabilization of Magnesium Hydride Using Mg-Based Solid Solution Alloys. <b>2014</b> , 118, 11526-11535		44
1421	High-Throughput Screening of Porous Crystalline Materials for Hydrogen Storage Capacity near Room Temperature. <b>2014</b> , 118, 5383-5389		74
1420	Effect of multi-wall carbon nanotubes supported palladium addition on hydrogen storage properties of magnesium hydride. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 10184-10194	6.7	41
1419	Interface effects in NaAlH <sub>4</sub> /carbon nanocomposites for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 10175-10183	6.7	14
1418	CeO <sub>2</sub> modified Fe <sub>2</sub> O <sub>3</sub> for the chemical hydrogen storage and production via cyclic water splitting. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 13381-13388	6.7	40
1417	Hydrogen storage for fuel cell vehicles. <b>2014</b> , 5, 42-48		128
1416	Hydrogen storage and release: Kinetic and thermodynamic studies of MgH <sub>2</sub> activated by transition metal nanoparticles. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 11633-11641	6.7	59

1415	Significant quantum effects in hydrogen activation. <b>2014</b> , 8, 4827-35		35
1414	First-Principles Investigation of Dehydrogenation on Cu-Doped MgH <sub>2</sub> (001) and (110) Surfaces. <b>2014</b> , 118, 13607-13616		15
1413	The Effect of Nickel and Graphite on the Hydrogen Storage Ability of Magnesium in the First Cycle. <b>2014</b> , 2, 570-573		4
1412	Unified mechanism for hydrogen trapping at metal vacancies. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 11321-11327	6.7	25
1411	Role of heat pipes in improving the hydrogen charging rate in a metal hydride storage tank. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 10552-10563	6.7	29
1410	Hydrogen absorption and desorption in the Mg-Al system. <b>2014</b> , 611, 202-209		17
1409	Superior hydrogen storage and electrochemical properties of Mg-Li-B trilayer films at room temperature. <b>2014</b> , 267, 598-602		13
1408	Hydrogen storage in Mg-Li-BH <sub>4</sub> composites catalyzed by FeF <sub>3</sub> . <b>2014</b> , 267, 799-811		33
1407	Investigations of filling mass with the dependence of heat transfer during fast filling of hydrogen cylinders. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 4380-4388	6.7	27
1406	Hydrogen absorption characteristics and Mössbauer spectroscopic study of Ti <sub>0.67</sub> Nb <sub>0.33-x</sub> Fe <sub>x</sub> (x = 0.00, 0.13, 0.20) alloys. <b>2014</b> , 585, 120-128		9
1405	Hydrogen storage properties of 2Mg-Fe after the combined processes of hot extrusion and cold rolling. <b>2014</b> , 586, S409-S412		12
1404	Hydrogen Sorption Behaviors of a Core-Shell Structured Mg@Fe Composite Powder. <b>2014</b> , 55, 1156-1160		6
1403	Fuel Cells with Nanomaterials for Ecologically Pure Transport. <b>2014</b> , 469-482		
1402	Well-defined, nanometer-sized LiH cluster compounds stabilized by pyrazolate ligands. <b>2014</b> , 53, 1338-41		17
1401	Well-Defined, Nanometer-Sized LiH Cluster Compounds Stabilized by Pyrazolate Ligands. <b>2014</b> , 126, 1362-1365		3
1400	An investigation on electrochemical hydrogen storage performances of Mg-Y-Ni alloys prepared by mechanical milling. <b>2015</b> , 33, 874-883		7
1399	Hydrogen Desorption Properties of MgH <sub>2</sub> -5 at% Ti-Cr-Mn-Fe-V Composite Via Combined Vacuum Arc Remelting and Mechanical Alloying. <b>2015</b> , 11, 605-610		4
1398	Hydrogen Desorption Properties of MgH <sub>2</sub> -5 Wt% Ti-Mn-Cr Composite via Combined Melt Spinning and Mechanical Alloying. <b>2015</b> , 11, 611-615		7

1397	Kinetics of hydrogen release from dissolutions of ammonia borane in different ionic liquids. <b>2015</b> , 91, 742-750		11
1396	Hydrogen Evolution from Organic Hydrides through Microwave Selective Heating in Heterogeneous Catalytic Systems. <b>2015</b> , 259-280		
1395	Hydrolytic dehydrogenation of ammonia borane catalyzed by metal-organic framework supported bimetallic RhNi nanoparticles. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 16391-16397	6.7	41
1394	Materials for Hydrogen Storage. <b>2015</b> , 1-19		1
1393	Carbon-Based Nanomaterials for H <sub>2</sub> Storage. <b>2015</b> , 407-437		
1392	Pulsed laser deposition of air-sensitive hydride epitaxial thin films: LiH. <b>2015</b> , 3, 096106		10
1391	Hydrogen absorption/desorption property of (La,Ce,Pr)(Ni,Mn,Al) 5 alloys. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 11902-11907	6.7	3
1390	Liquid organic hydrogen carriers. <b>2015</b> , 24, 587-594		104
1389	Design and Characterization of a Hydride-based Hydrogen Storage Container for Neutron Imaging Studies. <b>2015</b> , 69, 491-495		1
1388	Actuation of Pneumatic Artificial Muscle via Hydrogen Absorption/Desorption of Metal Hydride-LaNi <sub>5</sub> . <b>2015</b> , 7, 364306		4
1387	Hydrogen Storage Materials for Mobile and Stationary Applications: Current State of the Art. <b>2015</b> , 8, 2789-825		236
1386	Metal-Organic Frameworks and Porous Coordination Polymers: Properties and Applications. <b>2015</b> , 65, 9-22		10
1385	Hydrogen Storage Methods for Fuel Cell Vehicles: Current Status. <b>2015</b> ,		3
1384	The Search for Hydrogen Stores on a Large Scale; A Straightforward and Automated Open Database Analysis as a First Sweep for Candidate Materials. <b>2015</b> , 5, 617-633		4
1383	Kinetic Modification on Hydrogen Desorption of Lithium Hydride and Magnesium Amide System. <b>2015</b> , 8, 3896-3909		6
1382	Effect of Cold Rolling on the Hydrogen Desorption Behavior of Binary Metal Hydride Powders under Microwave Irradiation. <b>2015</b> , 5, 2021-2033		6
1381	Hydrogen Storage in Rippled Graphene: Perspectives from Multi-Scale Simulations. <b>2015</b> , 2,		18
1380	Review of Solid State Hydrogen Storage Methods Adopting Different Kinds of Novel Materials. <b>2015</b> , 2015, 1-18		41



1379	. 2015,			15
1378	Tight-Bindingn-momentpotential for zirconium hydride atomistic modeling. <b>2015</b> , 112, 102			2
1377	Remarkably Improved Hydrogen Storage Performance of MgH <sub>2</sub> Catalyzed by Multivalence NbH <sub>x</sub> Nanoparticles. <b>2015</b> , 119, 8554-8562			58
1376	Catalytic Effect of Nb Nanoparticles for Improving the Hydrogen Storage Properties of Mg-Based Nanocomposite. <b>2015</b> , 150615090823006			50
1375	Dehydrogenation behavior and microstructure evolution of hydrogenated magnesium-nickel-lithium melt-spun ribbons. <b>2015</b> , 5, 54258-54265			16
1374	High Pressure Ignition and Combustion of Aluminum Hydride. <b>2015</b> , 187, 1335-1350			11
1373	Measurement of boundary conditions for numerical solution of temperature fields of metal hydride containers. <b>2015</b> , 72, 52-60			11
1372	Characterization of ZrO <sub>2</sub> ceramic coatings on ZrH <sub>1.8</sub> prepared in different electrolytes by micro-arc oxidation. <b>2015</b> , 1			2
1371	Considerations on the H <sub>2</sub> desorption process for a combination reactor based on metal and complex hydrides. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 7072-7082	6.7		4
1370	Hydrogen insertion in substoichiometric titanium carbide. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 8562-8570	6.7		12
1369	Hydrogenation behavior of the R <sub>4</sub> MgCo (R=Y, La, Nd, Tb) compounds. <b>2015</b> , 229, 135-140			10
1368	Microstructure and electrochemical hydrogenation/dehydrogenation performance of melt-spun La-doped Mg <sub>2</sub> Ni alloys. <b>2015</b> , 106, 163-174			22
1367	Hydrogen storage: Materials, methods and perspectives. <b>2015</b> , 50, 457-469			416
1366	Mechanically induced gas-solid reaction for synthesizing of hydrogen storage metal hydrides. <b>2015</b> , 202-227			
1365	Effects of equal-channel angular pressing and accumulative roll-bonding on hydrogen storage properties of a commercial ZK60 magnesium alloy. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 16971-16976	6.7		32
1364	Heterogeneous and homogenous catalysts for hydrogen generation by hydrolysis of aqueous sodium borohydride (NaBH <sub>4</sub> ) solutions. <b>2015</b> , 3, 174-188			140
1363	Catalysis of Lithium Chloride and Alkali Metal Borohydrides on Hydrogen Generation of Ammonia and Lithium Hydride System. <b>2015</b> , 119, 19922-19927			9
1362	Comparative study of full-scale thin double-layered annulus beds loaded with ZrCo, Zr <sub>0.8</sub> Hf <sub>0.2</sub> Co and Zr <sub>0.8</sub> Ti <sub>0.2</sub> Co for recovery and delivery of hydrogen isotopes. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 10923-10933	6.7		43

- 1361 Formation of metastable phases in magnesium-titanium system by high-pressure torsion and their hydrogen storage performance. **2015**, 99, 150-156 52
- 1360 Decomposition and Ignition Characteristics of Titanium Hydride at High Heating Rates. **2015**, 187, 1182-1194 5
- 1359 System optimization of cyclohexane dehydrogenation under multiphase reaction conditions using the uniform design method. *International Journal of Hydrogen Energy*, **2015**, 40, 15923-15932 6.7 8
- 1358 Electrochemical hydrogen storage properties of non-equilibrium Ti<sub>2</sub>Mg<sub>x</sub>Ni alloys. **2015**, 25, 3729-3735 3
- 1357 Isothermic Heat of Potential Confinement in the Hydrogen Storage Material. **2015**, 10, 1550120
- 1356 Practical Experience With a Mobile Methanol Synthesis Device. **2015**, 137, 4
- 1355 Effect of ball-milling duration and dehydrogenation on the morphology, microstructure and catalyst dispersion in Ni-catalyzed MgH<sub>2</sub> hydrogen storage materials. **2015**, 86, 55-68 110
- 1354 Understanding the mechanism of H atom absorption in the Pd(1 1 0) surface. **2015**, 645, S123-S127 9
- 1353 Potassium, rubidium and cesium hydrides as dehydrogenation catalysts for the lithium amide/magnesium hydride system. *International Journal of Hydrogen Energy*, **2015**, 40, 2266-2273 6.7 32
- 1352 Catalytic hydrolysis of ammonia borane for hydrogen generation using Cu(0) nanoparticles supported on TiO<sub>2</sub> nanofibers. **2015**, 470, 194-201 44
- 1351 Hydrogenation properties of nanostructured Ti<sub>2</sub>Ni-based alloys and nanocomposites. **2015**, 280, 435-445 18
- 1350 Investigation of the dehydrogenation behavior of the 2LiBH<sub>4</sub>:CaNi<sub>5</sub> multicomponent hydride system. *International Journal of Hydrogen Energy*, **2015**, 40, 2989-2996 6.7 4
- 1349 Density functional study of vibrational, thermodynamic and elastic properties of ZrCo and ZrCoX<sub>3</sub> (X = H, D and T) compounds. **2015**, 629, 297-304 21
- 1348 Preparation of Al-Ga-In-Sn-Bi quinary alloy and its hydrogen production via water splitting. *International Journal of Hydrogen Energy*, **2015**, 40, 2354-2362 6.7 65
- 1347 Modulating the interactions between MgH<sub>2</sub> and graphene using different dopants. **2015**, 623, 82-88 1
- 1346 Evidence of the hydrogen release mechanism in bulk MgH<sub>2</sub>. **2015**, 5, 8450 50
- 1345 Effect of synthesis route on the hydrogen storage properties of 2MgH<sub>2</sub>Be compound doped with LiBH<sub>4</sub>. **2015**, 645, S304-S307 8
- 1344 Hydrogen storage performance of palladium nanoparticles decorated graphitic carbon nitride. *International Journal of Hydrogen Energy*, **2015**, 40, 3259-3267 6.7 61

1343	Simulation studies and safety analysis of high pressure milling vials for the direct synthesis of high capacity metal hydrides. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 5006-5012	6.7	5
1342	Cyclic Dehydrogenation(Re)Hydrogenation with Hydrogen-Storage Materials: An Overview. <b>2015</b> , 3, 100-117		22
1341	Theoretical exploration of MgH <sub>2</sub> and graphene nano-flakes in cyclohexane: proposing a new perspective toward functional hydrogen storage material. <b>2015</b> , 51, 2429-32		15
1340	Gaseous and electrochemical hydrogen storage behaviors of nanocrystalline and amorphous Nd-added Mg <sub>2</sub> Ni-type alloys. <b>2015</b> , 34, 463-471		5
1339	Development of templated carbon by carbonisation of sucrose-zeolite composite for hydrogen storage. <b>2015</b> , 39, 223-233		13
1338	Chemical hydrogen storage material property guidelines for automotive applications. <b>2015</b> , 279, 593-609		19
1337	Preparation and hydrogen sorption properties of a Ni decorated Mg based Mg@Ni nano-composite. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 1820-1828	6.7	52
1336	Effect of mechanical grinding on the electrochemical hydrogen storage properties of Mg <sub>2</sub> Ni alloy. <b>2015</b> , 19, 1187-1195		12
1335	Combination of nanosizing and interfacial effect: Future perspective for designing Mg-based nanomaterials for hydrogen storage. <b>2015</b> , 44, 289-303		128
1334	Enhanced hydrogen desorption property of MgH <sub>2</sub> with the addition of cerium fluorides. <b>2015</b> , 645, S392-S396		42
1333	Remarkable hydrogen desorption properties and mechanisms of the Mg <sub>2</sub> FeH <sub>6</sub> @MgH <sub>2</sub> core-shell nanostructure. <b>2015</b> , 3, 5517-5524		49
1332	Hydrogen diffusion behavior and vacancy interaction behavior in OsO <sub>2</sub> and RuO <sub>2</sub> by ab initio calculations. <b>2015</b> , 102, 14-20		2
1331	The synthesis, structure and dehydrogenation of calcium borohydride hydrazinates. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 5333-5339	6.7	3
1330	Growth of nano-textured graphene coatings across highly porous stainless steel supports towards corrosion resistant coatings. <b>2015</b> , 87, 395-408		52
1329	Resonant photoemission spectroscopy study of the d and f states in GdNi <sub>5</sub> & Cu x intermetallics. <b>2015</b> , 79, 134-138		2
1328	Hydrogen transport within graphene multilayers by means of flexural phonons. <b>2015</b> , 2, 014009		3
1327	Modeling of cooling system for hydrogen storage process with sodium alanate and catalyzed by titanium chloride. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 8903-8910	6.7	4
1326	Effects of Ni and Co-decorated MWCNTs addition on the dehydrogenation behavior and stability of LiAlH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 14064-14071	6.7	15

1325	Catalytic and inhibitive effects of Pd and Pt decorated MWCNTs on the dehydrogenation behavior of LiAlH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 10185-10193	6.7	12
1324	Numerical analysis of metal hydride tank with phase change material. <b>2015</b> , 90, 674-682		60
1323	Cost reduction possibilities of vanadium-based solid solutions [Microstructural, thermodynamic, cyclic and environmental effects of ferrovanadium substitution. <b>2015</b> , 648, 1024-1030		18
1322	Hydrogen storage properties of Ti <sub>0.32</sub> Cr <sub>0.43</sub> V <sub>0.25</sub> alloy and its composite with TiMn <sub>2</sub> . <b>2015</b> , 649, 801-808		9
1321	Reaction kinetic behaviour with relation to crystallite/grain size dependency in the Mg <sub>2</sub> Si system. <b>2015</b> , 95, 244-253		23
1320	Photochemical hydrogen production from 3d transition-metal complexes bearing o-phenylenediamine ligands. <b>2015</b> , 313, 99-106		3
1319	Experimental study on full-scale ZrCo and depleted uranium beds applied for fast recovery and delivery of hydrogen isotopes. <b>2015</b> , 145, 27-35		41
1318	Computational investigation of hydrogen adsorption/desorption on ZrO <sub>2</sub> (C 2 H 2 ) and its ion. <b>2015</b> , 457, 57-62		14
1317	Study of highly porous polymers for H <sub>2</sub> fuel storage using positron annihilation lifetime spectroscopy. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 8732-8741	6.7	5
1316	A generic physical model for a thermally integrated high-temperature PEM fuel cell and sodium alanate tank system. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 14551-14561	6.7	9
1315	Synthesis and hydrogen sorption properties of TiV(2x)Mnx BCC alloys. <b>2015</b> , 624, 247-250		20
1314	Tracer study of oxygen and hydrogen uptake by Mg alloys in air with water vapor. <b>2015</b> , 106, 38-41		7
1313	Energy Dissipation to Tungsten Surfaces upon Eley-Read Recombination of N <sub>2</sub> and H <sub>2</sub> . <b>2015</b> , 119, 15434-15443		7
1312	Nanotechnology for Chemical Engineers. <b>2015</b> ,		5
1311	From Nanotechnology to Nanoengineering. <b>2015</b> , 79-178		6
1310	Solar hydrogen system for cooking applications: Experimental and numerical study. <b>2015</b> , 83, 717-728		17
1309	Zero-Point Effects on Phase Transitions of Thorium Dihydride under High Pressure. <b>2015</b> , 119, 13465-13471		6
1308	Ammonium phosphate as promised hydrogen storage material. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 10103-10110	6.7	3

1307	Recent progress on Kubas-type hydrogen-storage nanomaterials: from theories to experiments. <b>2015</b> , 66, 1649-1655		11
1306	Introduction to hydrogen and its properties. <b>2015</b> , 3-19		1
1305	Study on the hydrogen storage properties and reaction mechanism of NaAlH <sub>4</sub> /Mg(BH <sub>4</sub> ) <sub>2</sub> (2:1) with and without TiF <sub>3</sub> additive. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 7628-7635	6.7	44
1304	Hydrogen: A sustainable fuel for future of the transport sector. <b>2015</b> , 51, 623-633		296
1303	Study on hydrogen generation from the hydrolysis of a ball milled aluminum/calcium hydride composite. <b>2015</b> , 5, 60460-60466		13
1302	Facile synthesis of a genuinely alkane-soluble but isolable lithium hydride transfer reagent. <b>2015</b> , 51, 5452-5		36
1301	Advances in Ruthenium Catalysed Hydrogen Release from C1 Storage Materials. <b>2015</b> , 2,		1
1300	Effects of stoichiometric ratio La/Mg on structures and electrochemical performances of as-cast and annealed LaMgNi-based A2B7-type electrode alloys. <b>2015</b> , 25, 1968-1977		11
1299	A new lanthanum(III) complex, [La(MO) <sub>3</sub> (DMF) <sub>3</sub> (H <sub>2</sub> O) <sub>2</sub> ] (MO = methyl orange), and La <sub>2</sub> O <sub>2</sub> SO <sub>4</sub> nanoparticles; electrocatalytic activity for adsorption/desorption/evolution of hydrogen. <b>2015</b> , 99, 186-197		3
1298	First principles study on stability and hydrogen adsorption properties of Mg/Ti interface. <b>2015</b> , 17, 16594-600		7
1297	Solubility and diffusivity of H <sub>2</sub> and CO <sub>2</sub> in the ionic liquid [bmim][PF <sub>6</sub> ]. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 8713-8720	6.7	12
1296	Phase transformations of titanium hydride in thermal desorption process with different heating rates. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 8926-8934	6.7	38
1295	RETRACTED: The synthesis of ferrocene-based mixed-metal coordination polymer microspheres and their application in hydrogen storage. <b>2015</b> , 647, 1111-1120		4
1294	Film Breakdown and Nano-Porous Mg(OH) <sub>2</sub> Formation from Corrosion of Magnesium Alloys in Salt Solutions. <b>2015</b> , 162, C140-C149		98
1293	Closing the pressure gap in x-ray photoelectron spectroscopy by membrane hydrogenation. <b>2015</b> , 86, 053104		10
1292	MgH <sub>2</sub> /rFe <sub>2</sub> H <sub>x</sub> nanocomposites for improved hydrogen storage characteristics of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 11506-11513	6.7	44
1291	Phase transition and hydrogen storage properties of MgCa alloy. <b>2015</b> , 642, 180-184		39
1290	<sup>3</sup> He retention and structural evolution in erbium tritides: Phase and aging effects. <b>2015</b> , 461, 157-163		4

1289	Significance of grain boundaries and stacking faults on hydrogen storage properties of Mg <sub>2</sub> Ni intermetallics processed by high-pressure torsion. <b>2015</b> , 92, 46-54		88
1288	Effects of Annealing Temperature on the Electrochemical Hydrogen Storage Behaviors of La-Mg-Ni-Based A2B7-Type Electrode Alloys. <b>2015</b> , 46, 2294-2303		5
1287	Effect of Co substitution on hydrogenation and magnetic properties of NdMgNi <sub>4</sub> alloy. <b>2015</b> , 639, 526-532		23
1286	Effect of Fe additive on the hydrogenation-dehydrogenation properties of 2LiBH <sub>4</sub> /Mg <sub>2</sub> /2LiBH <sub>4</sub> system. <b>2015</b> , 284, 606-616		26
1285	Hydrogen diffusion in MgH <sub>2</sub> doped with Ti, Mn and Fe. <b>2015</b> , 5, 34894-34899		17
1284	"Job-Sharing" Storage of Hydrogen in Ru/Li <sub>2</sub> O Nanocomposites. <b>2015</b> , 15, 4170-5		27
1283	Towards a smart energy network: The roles of fuel/electrolysis cells and technological perspectives. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 6866-6919	6.7	107
1282	Influences of hydrogen-induced amorphization and annealing treatment on gaseous hydrogen storage properties of La <sub>1-x</sub> MgNi <sub>3.6</sub> Co <sub>0.4</sub> (x= 0.4) alloys. <b>2015</b> , 639, 15-20		19
1281	LiBH <sub>4</sub> nanoconfined in activated carbon nanofiber for reversible hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 4167-4174	6.7	37
1280	Fast and reversible hydrogen sensing properties of Pd/Mg thin film modified by hydrophobic porous silicon substrate. <b>2015</b> , 213, 252-260		37
1279	Ce(Mn,Fe)O <sub>2</sub> (La,Sr)(Fe,Mn)O <sub>3</sub> composite as an active cathode for electrochemical reduction of CO <sub>2</sub> in proton conducting solid oxide cells. <b>2015</b> , 275, 106-109		15
1278	Electrochemical hydrogen storage behaviors of the nanocrystalline and amorphous Nd-Cu-added Mg <sub>2</sub> Ni-type alloy electrodes applied to Ni-MH battery. <b>2015</b> , 19, 2343-2351		3
1277	Palladium nanoparticle-based surface acoustic wave hydrogen sensor. <b>2015</b> , 7, 5709-14		69
1276	Oxygen deficient layered double perovskite as an active cathode for CO <sub>2</sub> electrolysis using a solid oxide conductor. <b>2015</b> , 182, 227-39		56
1275	Influence of Ta and Nb on the hydrogen absorption kinetics in Zr-based alloys. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 5677-5682	6.7	12
1274	Hydrides for submarine applications: Overview and identification of optimal alloys for air independent propulsion maximization. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 11879-11889	6.7	26
1273	Combined experimental and theoretical investigation of characterization and hydrogen storage properties of Zn(II) based complex and composites. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 5907-5915	6.7	11
1272	Two alternative approaches to access mixed hydride-amido zinc complexes: synthetic, structural and solution implications. <b>2015</b> , 44, 8169-77		13

1271	Investigation of properties of Mg(n) clusters and their hydrogen storage mechanism: a study based on DFT and a global minimum optimization method. <b>2015</b> , 119, 3636-43		27
1270	Design of an efficient, high purity hydrogen generation apparatus and method for a sustainable, closed clean energy cycle. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 9885-9906	6.7	11
1269	Exploring N-Rich Phases in Li(x)N(y) Clusters for Hydrogen Storage at Nanoscale. <b>2015</b> , 6, 3726-30		10
1268	Development of a small-scale hydrogen liquefaction system. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 11872-11878	6.7	10
1267	Experimental study on the effect of low melting point metal additives on hydrogen production in the aluminum-water reaction. <b>2015</b> , 88, 537-543		39
1266	Ultrasound-assisted synthesis of nano-structured zirconium hydride at room temperature. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 13942-13948	6.7	4
1265	Stability of Catalyzed Magnesium Hydride Nanocrystalline During Hydrogen Cycling. Part I: Kinetic Analysis. <b>2015</b> , 119, 22261-22271		36
1264	Density functional theory guide to structure and thermodynamics of metal hydrides [Case study of (Ti, Zr, Hf)Ni intermetallic compounds. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 13029-13038	6.7	4
1263	Generalized computational model for high-pressure metal hydrides with variable thermal properties. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 11470-11477	6.7	5
1262	High capacity hydrogen storage at room temperature via physisorption in a coordinatively unsaturated iron complex. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 16330-16337	6.7	9
1261	Catalytic hydrogen generation from hydrolysis of ammonia borane using octahedral Au@Pt nanoparticles. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 16316-16322	6.7	19
1260	Graphene-based technologies for energy applications, challenges and perspectives. <b>2015</b> , 2, 030204		62
1259	Nickel Metal Hydride battery: Structure, chemical reaction, and circuit model. <b>2015</b> ,		5
1258	Investigation of an integrated hydrogen production system based on nuclear and renewable energy sources: Comparative evaluation of hydrogen production options with a regenerative fuel cell system. <b>2015</b> , 88, 801-820		22
1257	Hydrogen trapping potential of (HF) <sub>m</sub> (m=1-8) and (H <sub>2</sub> O) <sub>n</sub> (n=1-10) clusters. <b>2015</b> , 1071, 18-26		3
1256	Contributions of multiple phenomena towards hydrogenation: A case of Mg. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 13518-13529	6.7	9
1255	Development and Application of Hydrogen Storage. <b>2015</b> , 22, 757-770		59
1254	Activated carbons derived from tamarind seeds for hydrogen storage. <b>2015</b> , 4, 89-95		52



- 1253 Stress effects on the kinetics of hydrogen adsorption in a spherical particle: An analytical model. *International Journal of Hydrogen Energy*, **2015**, 40, 17009-17016 6.7 5
- 1252 The Application of Solar-Powered Polymer Electrolyte Membrane (PEM) Electrolysers for the Sustainable Production of Hydrogen Gas as Fuel for Domestic Cooking. **2015**, 193-203
- 1251 Hydrogen Storage in Modified Kenaf. **2015**, 1113, 631-636
- 1250 Can the Degree of Crystallinity of Ball Milled Mg<sub>2</sub>Ni Intermetallic Compound Decide its Electrochemical Characteristics?. **2015**, 33, 137-149
- 1249 Nanocharacterization. **2015**, 117-180 1
- 1248 Theory and X-ray Absorption Spectroscopy for Aluminum Coordination Complexes [Al K-Edge Studies of Charge and Bonding in (BDI)Al, (BDI)AlR<sub>2</sub>, and (BDI)AlX<sub>2</sub> Complexes. **2015**, 137, 10304-16 15
- 1247 Ag, Zn and Cd-doped titanium oxide nanofibers as effective photocatalysts for hydrogen extraction from ammonium phosphates. **2015**, 409, 117-126 8
- 1246 Magnesium as Novel Material for Active Plasmonics in the Visible Wavelength Range. **2015**, 15, 7949-55 131
- 1245 Cryogenic hydrogen fuel tanks for large hypersonic cruise vehicles. *International Journal of Hydrogen Energy*, **2015**, 40, 12798-12810 6.7 10
- 1244 Two dimetallocenes with vanadium and chromium: Electronic structures and their promising application in hydrogen storage. *International Journal of Hydrogen Energy*, **2015**, 40, 12047-12056 6.7 11
- 1243 Crystal feature and electronic structure of novel mixed alanate LiCa(AlH<sub>4</sub>)<sub>3</sub>: a density functional theory investigation. **2015**, 5, 16439-16445 5
- 1242 CFD investigation on performance enhancement of metal hydride hydrogen storage vessels using heat pipes. **2015**, 91, 434-446 38
- 1241 RETRACTED: Solar hydrogen hybrid energy systems for off-grid electricity supply: A critical review. **2015**, 52, 1791-1808 47
- 1240 Investigations of the structural stability of metal hydride composites by in-situ neutron imaging. **2015**, 293, 109-118 15
- 1239 Thermodynamics, kinetics and modeling studies of KH- RbH- and CsH-doped 2LiNH<sub>2</sub>/MgH<sub>2</sub> hydrogen storage systems. *International Journal of Hydrogen Energy*, **2015**, 40, 12336-12342 6.7 12
- 1238 Hydrogen retention in beryllium: concentration effect and nanocrystalline growth. **2015**, 27, 475401 13
- 1237 The development of metal hydrides using as concentrating solar thermal storage materials. **2015**, 9, 317-331 17
- 1236 Hydrolysis of lithium hydride under low relative humidity. *International Journal of Hydrogen Energy*, **2015**, 40, 12736-12744 6.7 10

1235	Ortho-para hydrogen conversion characteristics of amorphous and mesoporous Cr <sub>2</sub> O <sub>3</sub> powders at a temperature of 77 K. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 14147-14153	6.7	9
1234	Application of metal hydride paper to simple pressure generator for use in soft actuator systems. <b>2015</b> , 2015, 4789-92		4
1233	Nanomaterials in Proton Exchange Fuel Cells. <b>2015</b> , 88, 1554-1568		5
1232	The electrochemical hydrogen storage properties of Ti <sub>0.72</sub> Zr <sub>0.28</sub> Mn <sub>1.6</sub> V <sub>0.4</sub> alloy synthesized by vacuum plasma spraying and vacuum copper boat induction melting: A comparative study. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 15569-15577	6.7	5
1231	Hydrogenation behavior of Mg <sub>85</sub> Zn <sub>6</sub> Y <sub>9</sub> crystalline alloy with long period stacking ordered structure. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 13014-13021	6.7	15
1230	Effect of Synthesized MgNi <sub>4</sub> Y Catalyst on Hydrogen Desorption Properties of Milled MgH <sub>2</sub> . <b>2015</b> , 2, 27-32		
1229	Hydrogen storage in Mg/Mg <sub>2</sub> Ni/carbon hybrids. <b>2015</b> , 645, S397-S399		11
1228	Study on hydrogen storage properties of MgX (X = Fe, Co, V) nano-composites co-precipitated from solution. <b>2015</b> , 5, 7687-7696		25
1227	An experimental survey of additives for improving dehydrogenation properties of magnesium hydride. <b>2015</b> , 278, 38-42		37
1226	Remarkable enhancement in hydrogen storage on free-standing Ti <sub>3</sub> B and BC <sub>3</sub> supported Ti <sub>3</sub> clusters. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 1054-1061	6.7	19
1225	Adsorption and Dissociation of H <sub>2</sub> on B <sub>n</sub> and MgB <sub>n</sub> (n = 2-7) Clusters: A DFT Investigation. <b>2015</b> , 26, 983-999		8
1224	In operando visualization of hydride-graphite composites during cyclic hydrogenation by high-resolution neutron imaging. <b>2015</b> , 277, 360-369		16
1223	Liquid organic and inorganic chemical hydrides for high-capacity hydrogen storage. <b>2015</b> , 8, 478-512		534
1222	BC(3) sheet functionalized with lithium-rich species emerging as a reversible hydrogen storage material. <b>2015</b> , 16, 634-9		8
1221	Computational investigation of hydrogen storage on scandium/acetylene system. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 420-428	6.7	25
1220	The electrochemical hydrogen storage performances of Si-added LaMgNiCo-based A <sub>2</sub> B <sub>7</sub> -type electrode alloys. <b>2015</b> , 34, 569-579		17
1219	NiB-doped NaAlH <sub>4</sub> hydrogen storage materials prepared by a facile two-step synthesis method. <b>2015</b> , 34, 679-682		10
1218	Magnesium Hydride Doped on Single-Walled Carbon Nanotubes for Hydrogen Adsorption. <b>2015</b> , 23, 175-180		3

1217	Numerical study of hydrogen purification using metal hydride reactor with aluminium foam. <b>2015</b> , 76, 175-184		19
1216	Combining HC-SCR over Ag/Al <sub>2</sub> O <sub>3</sub> and hydrogen generation over Rh/CeO <sub>2</sub> -ZrO <sub>2</sub> using biofuels: An integrated system approach for real applications. <b>2015</b> , 162, 583-592		17
1215	Enhancement of hydrogen storage capacity and hydrostability of metal-organic frameworks (MOFs) with surface-loaded platinum nanoparticles and carbon black. <b>2015</b> , 202, 8-15		41
1214	A review of catalyst-enhanced magnesium hydride as a hydrogen storage material. <b>2015</b> , 84, 96-106		187
1213	Solid state storage of hydrogen and its isotopes: An engineering overview. <b>2015</b> , 41, 872-883		47
1212	Ti-based BCC Alloy: Dehydrogenation Characterization Using Synchrotron and Neutron Diffraction. <b>2016</b> , 19, 8-12		3
1211	Use of carbohydrates for hydrogen storage. <b>2016</b> , 219-241		
1210	Effect of Alloying Elements in Melt Spun Mg-alloys for Hydrogen Storage. <b>2016</b> , 19, 20-26		
1209	Gaseous Phase and Electrochemical Hydrogen Storage Properties of Ti <sub>50</sub> Zr <sub>1</sub> Ni <sub>44</sub> X <sub>5</sub> (X = Ni, Cr, Mn, Fe, Co, or Cu) for Nickel Metal Hydride Battery Applications. <b>2016</b> , 2, 24		5
1208	Optimization of Internal Cooling Fins for Metal Hydride Reactors. <b>2016</b> , 9, 447		7
1207	Electrodeposited Magnesium Nanoparticles Linking Particle Size to Activation Energy. <b>2016</b> , 9, 1073		10
1206	Hydrogen Absorption in Metal Thin Films and Heterostructures Investigated in Situ with Neutron and X-ray Scattering. <b>2016</b> , 6, 125		14
1205	The survey of key technologies in hydrogen energy storage. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 14535-14552	6.7	368
1204	Selective Hydrogen Generation from Formic Acid with Well-Defined Complexes of Ruthenium and Phosphorus-Nitrogen PN(3) -Pincer Ligand. <b>2016</b> , 11, 1357-60		77
1203	Study on the synthesis and hydrogen storage properties of Mg <sub>2</sub> CuH <sub>3</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 13152-13155	6.7	1
1202	Facile Uptake and Release of Ammonia by Nickel Halide Amines. <b>2016</b> , 9, 1312-21		7
1201	Energetic evaluation of hydrogen storage in metal hydrides. <b>2016</b> , 40, 1820-1831		28
1200	Physics of Hydrogen. <b>2016</b> , 563-600		

1199	Thermo-Economic Analysis of a Photovoltaic-Fuel Cell Hybrid System With Energy Storage for CHP Production in Household Sector. <b>2016</b> ,		
1198	Relationship Between Incubation Period and Specific Surface Area of Magnesium Hydride for Dehydrogenation. <b>2016</b> , 80, 740-744		
1197	Effect of melt spinning on gaseous hydrogen storage characteristics of nanocrystalline and amorphous Nd-added Mg <sub>2</sub> Ni-type alloys. <b>2016</b> , 23, 2754-2762		1
1196	Superior hydrogen storage in high entropy alloys. <b>2016</b> , 6, 36770		140
1195	Effect of Heat Treatments on TiH <sub>2</sub> : Surface Composition and Hydrogen Release. <b>2016</b> , 879, 2032-2037		2
1194	Magnesium hydride film formation using subatmospheric pressure H <sub>2</sub> plasma at low temperature. <b>2016</b> , 34, 04J103		2
1193	Electrocatalytic Hydrogenation of o-Xylene in a PEM Reactor as a Study of a Model Reaction for Hydrogen Storage. <b>2016</b> , 45, 1437-1439		8
1192	Nitrogen-Based Alternative Fuels: Progress and Future Prospects. <b>2016</b> , 4, 7-18		15
1191	Enhanced hydrogen release of metal borohydrides M(BH <sub>4</sub> ) <sub>n</sub> (M=Li, Na, Mg, Ca) mixed with reduced graphene oxide. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 11225-11231	6.7	13
1190	Operando Raman-mass spectrometry investigation of hydrogen release by thermolysis of ammonia borane confined in mesoporous materials. <b>2016</b> , 226, 454-465		15
1189	Destabilization of lithium hydride by the substitution of group 14 elements: A review. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 5969-5978	6.7	18
1188	Synthesis of palladium incorporated MCM-41 via microwave irradiation and investigation of its hydrogen storage properties. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 9828-9833	6.7	8
1187	Synthesis of Ca(BH <sub>4</sub> ) <sub>2</sub> from Synthetic Colemanite Used in Hydrogen Storage by Mechanochemical Reaction. <b>2016</b> , 45, 3957-3963		4
1186	First principles study on defectives BN nanotubes for water splitting and hydrogen storage. <b>2016</b> , 653, 161-166		5
1185	Decoration of graphene sheets with Pd/Al <sub>2</sub> O <sub>3</sub> hybrid particles for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 9810-9818	6.7	20
1184	Hydrogen storage properties of a destabilized MgH <sub>2</sub> Sn system with TiF <sub>3</sub> addition. <b>2016</b> , 678, 297-303		38
1183	Role of interlayer spacing and functional group on the hydrogen storage properties of graphene oxide and reduced graphene oxide. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 9454-9461	6.7	64
1182	Different reactor and heat exchanger configurations for metal hydride hydrogen storage systems □ A review. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 9462-9470	6.7	48

1181	A novel dehydrogenation style of NH <sub>3</sub> BH <sub>3</sub> by catalyst of transition metal clusters. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 11746-11760	6.7	10
1180	Effect of LiH on electrochemical hydrogen storage properties of Ti 55 V 10 Ni 35 quasicrystal. <b>2016</b> , 52, 19-22		10
1179	Polarization characteristics of a low catalyst loading PEM water electrolyzer operating at elevated temperature. <b>2016</b> , 309, 127-134		41
1178	Kinetics studies of the reversible partial decomposition reaction in Mg(BH <sub>4</sub> ) <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 9885-9892	6.7	26
1177	Hydriding/dehydriding properties of NdMgNi alloy with catalyst CeO <sub>2</sub> . <b>2016</b> , 34, 407-412		3
1176	Unveiling the Mechanisms Leading to H <sub>2</sub> Production Promoted by Water Decomposition on Epitaxial Graphene at Room Temperature. <b>2016</b> , 10, 4543-9		56
1175	Mesoporous MCM-41 material for hydrogen storage: A short review. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 9789-9795	6.7	54
1174	Solid-state NMR and thermodynamic investigations on LiBH <sub>4</sub> LiNH <sub>2</sub> system. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 14475-14483	6.7	15
1173	Activation of titanium-vanadium alloy for hydrogen storage by introduction of nanograins and edge dislocations using high-pressure torsion. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 8917-8924	6.7	34
1172	Characterization of a nanocrystalline MgNi alloy processed by high-pressure torsion during hydrogenation and dehydrogenation. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 9803-9809	6.7	16
1171	Nanostructured materials for solid-state hydrogen storage: A review of the achievement of COST Action MP1103. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 14404-14428	6.7	74
1170	Enhanced hydrogen and methane storage of hybrid mesoporous organosilicas. <b>2016</b> , 4, 9275-9285		9
1169	The remarkable ability of anions to bind dihydrogen. <b>2016</b> , 18, 14588-602		18
1168	Neutron Scattering and Other Nuclear Techniques for Hydrogen in Materials. <b>2016</b> ,		8
1167	Neutron Powder Diffraction. <b>2016</b> , 31-89		1
1166	Hydrogen diffusion kinetics and structural integrity of superhigh pressure Mg-5wt%Ni alloys with dendrite interface. <b>2016</b> , 320, 212-221		40
1165	Highly sensitive and selective hydrogen gas sensor using sputtered grown Pd decorated MnO <sub>2</sub> nanowalls. <b>2016</b> , 234, 8-14		91
1164	Effect of Hydrogen on Corrosion and Stress Corrosion Cracking of AZ91 Alloy in Aqueous Solutions. <b>2016</b> , 29, 1-7		28

1163	Dehydrogenation kinetics study of perhydro-N-ethylcarbazole over a supported Pd catalyst for hydrogen storage application. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 8498-8505	6.7	35
1162	Functionalization and Isoreticulation in a Series of Metal-Organic Frameworks Derived from Pyridinecarboxylates. <b>2016</b> , 55, 7200-5		19
1161	Dynamics of H <sub>2</sub> adsorbed in porous materials as revealed by computational analysis of inelastic neutron scattering spectra. <b>2016</b> , 18, 17141-58		16
1160	Integration of thermal energy storage unit in a metal hydride hydrogen storage tank. <b>2016</b> , 102, 1185-1196		54
1159	Effect of trace Na additions on the hydrogen absorption kinetics of Mg <sub>2</sub> Ni. <b>2016</b> , 31, 1316-1327		14
1158	Structural and electronic properties of BeH <sub>2</sub> polymorphs: a study by density functional theory. <b>2016</b> , 90, 1257-1263		1
1157	Generation of Hydrogen from Water: A Pd-Catalyzed Reduction of Water Using Diboron Reagent at Ambient Conditions. <b>2016</b> , 18, 5062-5065		60
1156	Enhancement in hydrogen molecule adsorption on B <sub>12</sub> N <sub>12</sub> nano-cluster by decoration of nickel. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 22182-22191	6.7	77
1155	Hydride cycle formation of ternary alloys in TiVMn system and their interaction with hydrogen. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 13521-13530	6.7	5
1154	Ab initio study of boron and aluminum hydrides nanoparticles. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 20210-20216	6.7	12
1153	Study the Effect of NiF <sub>2</sub> Additive on the Hydrogen Sorption Properties of 4MgH <sub>2</sub> +Li <sub>3</sub> AlH <sub>6</sub> Destabilized System. <b>2016</b> , 3, S96-S103		3
1152	Oxygen depth profiling by resonant backscattering and glow discharge optical emission spectroscopy of Ti-6Al-4V alloy oxidized by ion implantation and plasma based treatment. <b>2016</b> , 384, 50-60		2
1151	Integration of low-pressure hydrogen storage cylinder and automatic controller for carbon deposit removal in car engine. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 21795-21801	6.7	2
1150	Strong correlation effect on the thermodynamic and mechanical properties of ytterbium dihydride. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 21286-21292	6.7	1
1149	Non-isothermal synergetic catalytic effect of TiF <sub>3</sub> and Nb <sub>2</sub> O <sub>5</sub> on dehydrogenation high-energy ball milled MgH <sub>2</sub> . <b>2016</b> , 183, 65-75		17
1148	Promoted hydrogen release from alkali metal borohydrides in ionic liquids. <b>2016</b> , 3, 1137-1145		12
1147	Hydrides. <b>2016</b> , 1-39		1
1146	Structural, electronic, elastic, vibrational and thermodynamic properties of ZrNi and ZrNiH <sub>3</sub> : A comprehensive study through first principles approach. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 20250-20260	6.7	9

1145	Technological forecasting of hydrogen storage materials using patent indicators. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 18301-18310	6.7	23
1144	Recent developments in porous materials for H <sub>2</sub> and CH <sub>4</sub> storage. <b>2016</b> , 57, 4873-4881		27
1143	Implementation and analysis of PV-FC hybrid system using design parameters obtained from TRNSYS model. <b>2016</b> ,		2
1142	Selective Formic Acid Dehydrogenation Catalyzed by Fe-PNP Pincer Complexes Based on the 2,6-Diaminopyridine Scaffold. <b>2016</b> , 35, 3344-3349		74
1141	Direct and reversible hydrogen storage of lithium hydride (LiH) nanoconfined in high surface area graphite. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 18088-18094	6.7	21
1140	Enhancement of hydrogen release kinetics from ethane 1,2 diamineborane (EDAB) by micronization using Supercritical Antisolvent (SAS) precipitation. <b>2016</b> , 306, 164-173		12
1139	A sustainable integrated in situ transesterification of microalgae for biodiesel production and associated co-product-a review. <b>2016</b> , 65, 1179-1198		88
1138	Crystal structure and hydrogen storage behaviors of Mg/MoS <sub>2</sub> composites from ball milling. <b>2016</b> , 31, 773-778		3
1137	Deactivation and regeneration of Raney-Ni catalyst during multiphase dehydrogenation of cyclohexane. <b>2016</b> , 4, 3253-3259		8
1136	Room-temperature hydrogen storage via two-dimensional potential well in mesoporous graphene oxide. <b>2016</b> , 27, 402-411		26
1135	Thermally Driven Electronic Topological Transition in FeTi. <b>2016</b> , 117, 076402		3
1134	Tailoring Thermodynamics and Kinetics for Hydrogen Storage in Complex Hydrides towards Applications. <b>2016</b> , 16, 189-204		49
1133	Efficient Visible Light-Driven Splitting of Alcohols into Hydrogen and Corresponding Carbonyl Compounds over a Ni-Modified CdS Photocatalyst. <b>2016</b> , 138, 10128-31		213
1132	Liquid foam assisted sol-gel synthesis of iron oxides for hydrogen storage via chemical looping. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 13923-13933	6.7	26
1131	Theoretical limit of reversible hydrogen storage capacity for pristine and oxygen-doped boron nitride. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 16984-16991	6.7	16
1130	Selective heating of Pd/AC catalyst in heterogeneous systems for the microwave-assisted continuous hydrogen evolution from organic hydrides: Temperature distribution in the fixed-bed reactor. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 12029-12037	6.7	37
1129	Nitrogen modified templated carbons for energy application: Effect of templates and nitrogen precursors. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 21300-21309	6.7	8
1128	Porously hierarchical Cu@Ni cubic-cage microstructure: Very active and durable catalyst for hydrolytically liberating H <sub>2</sub> gas from ammonia borane. <b>2016</b> , 99, 1038-1045		28



1127	Constant rate thermal analysis of a dehydrogenation reaction. <b>2016</b> , 6, 81454-81460		3
1126	Anisotropic storage medium development in a full-scale, sodium alanate-based, hydrogen storage system. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 13557-13574	6.7	4
1125	Thermal runaway as a new high-performance method of desorption of hydrogen from hydrides. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 14813-14819	6.7	13
1124	Catalytic Reforming of Oxygenates: State of the Art and Future Prospects. <b>2016</b> , 116, 11529-11653		201
1123	The interactions of Li <sub>3</sub> FeN <sub>2</sub> with H <sub>2</sub> and NH <sub>3</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 14171-14177		4
1122	Characterization of hydrogen storage properties of Mg-Fe-CNT composites prepared by ball milling, hot-extrusion and severe plastic deformation methods. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 23092-23098	6.7	11
1121	Effect of solution treatment on stress corrosion cracking behavior of an as-forged Mg-Zn-Y-Zr alloy. <b>2016</b> , 6, 29471		19
1120	Hydrogen Storage Properties of as-Cast La <sub>1-x</sub> Sm <sub>x</sub> MgNi <sub>3.6</sub> -Co <sub>0.4</sub> (x = 0~0.4) Alloys. <b>2016</b> , 45, 1938-1942		
1119	The Need for Hydrogen- Based Energy Technologies in the 21st Century. <b>2016</b> , 36-63		1
1118	Hydrogen Storage Characteristics of Nanocrystalline and Amorphous Nd-Mg-Ni-Based NdMg <sub>12</sub> -Type Alloys Synthesized via Mechanical Milling. <b>2016</b> , 47, 6404-6412		2
1117	Crystal structure, phase stoichiometry and chemical environment of Mg <sub>x</sub> Nb <sub>y</sub> O <sub>x+y</sub> nanoparticles and their impact on hydrogen storage in MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 11709-11715	6.7	16
1116	Effect of titanium ion implantation and deposition on hydrogenation behavior of Zr-1Nb alloy. <b>2016</b> , 308, 2-9		17
1115	Irreproducibility in hydrogen storage material research. <b>2016</b> , 9, 3368-3380		68
1114	Microwave-assisted synthesis of functional electrode materials for energy applications. <b>2016</b> , 20, 2915-2928		29
1113	Hydriding and dehydriding in air-exposed MgFe powder mixtures. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 23380-23387	6.7	8
1112	Impact of severe plastic deformation on microstructure and hydrogen storage of titanium-iron-manganese intermetallics. <b>2016</b> , 124, 108-111		29
1111	A microscopic level insight into Pt doped TiZn (001) surface for hydrogen energy storage usage. <b>2016</b> , 6, 73566-73575		
1110	Behaviour of freeze-casting iron oxide for purifying hydrogen streams by steam-iron process. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 19518-19524	6.7	7

1109	Hydrogen storage characteristics of Ti and V based thin films. <b>2016</b> , 1, 141-146		4
1108	Hydrogen carriers. <b>2016</b> , 1,		394
1107	A high-performance aluminum-feed microfluidic fuel cell stack. <b>2016</b> , 336, 427-436		19
1106	Effect of Pore Confinement of LiNH <sub>2</sub> on Ammonia Decomposition Catalysis and the Storage of Hydrogen and Ammonia. <b>2016</b> , 120, 27212-27220		20
1105	The use of air as heating agent in hydrogen metal hydride storage coupled with PEM fuel cell. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 23120-23124	6.7	15
1104	Effect of SrFe <sub>12</sub> O <sub>19</sub> nanopowder on the hydrogen sorption properties of MgH <sub>2</sub> . <b>2016</b> , 6, 110004-110010		39
1103	Improved hydrogen desorption properties of LiBH <sub>4</sub> by AlH <sub>3</sub> addition. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 22118-22127	6.7	36
1102	First-Principles Design of Iron-Based Active Catalysts for Adsorption and Dehydrogenation of H <sub>2</sub> O Molecule on Fe(111), W@Fe(111), and W <sub>2</sub> @Fe(111) Surfaces. <b>2016</b> , 120, 25780-25788		3
1101	Nanostructured Fe <sub>2</sub> O <sub>3</sub> /MgAl <sub>2</sub> O <sub>4</sub> material prepared by colloidal crystal templated sol-gel method for chemical looping with hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 22711-22721	6.7	23
1100	Carbon nanotubes for improving dehydrogenation from NaAlH <sub>4</sub> . <b>2016</b> , 1097, 61-69		5
1099	Feasibility analysis of a novel solid-state H <sub>2</sub> storage reactor concept based on thermochemical heat storage: MgH <sub>2</sub> and Mg(OH) <sub>2</sub> as reference materials. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 20549-20561	6.7	13
1098	Entwicklung eines skalierbaren Brenners zum Betrieb mit reinem Wasserstoff. <b>2016</b> , 88, 1508-1512		2
1097	Degradation Effects on PEM Fuel Cells Supplied with Hydrogen from a LOHC System. <b>2016</b> , 839, 165-169		6
1096	Phase transformations in the systems Ti <sub>2</sub> FeH <sub>2</sub> and Ti <sub>2</sub> FeH <sub>3</sub> . <b>2016</b> , 61, 891-895		5
1095	Electron beam induced dehydrogenation of MgH <sub>2</sub> studied by VEELS. <b>2016</b> , 2,		5
1094	High-Pressure Raman and Calorimetry Studies of Vanadium(III) Alkyl Hydrides for Kubas-Type Hydrogen Storage. <b>2016</b> , 17, 822-8		1
1093	Understanding the hydrogen storage behavior of promising AlMgNa compositions using thermodynamic modeling. <b>2016</b> , 5, 1		2
1092	Hydrogen storage and release from a new promising Liquid Organic Hydrogen Storage Carrier (LOHC): 2-methylindole. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 16129-16134	6.7	70

1091	An investigation on hydrogen storage thermodynamics and kinetics of NdMgNi-based alloys synthesized by mechanical milling. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 12205-12213	6.7	10
1090	The kinetics of lightweight solid-state hydrogen storage materials: A review. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 13131-13151	6.7	72
1089	Stability and hydrogen adsorption properties of Mg/TiMn <sub>2</sub> interface by first principles calculation. <b>2016</b> , 653, 22-26		9
1088	Effects of Ti-based additives on Mg <sub>2</sub> FeH <sub>6</sub> dehydrogenation properties. <b>2016</b> , 26, 791-798		7
1087	Chloride catalytic effect on hydrogen desorption in NaAlH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 8271-8276	6.7	10
1086	Structure, hydrogen storage kinetics and thermodynamics of Mg-base Sm <sub>5</sub> Mg <sub>41</sub> alloy. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 5994-6003	6.7	58
1085	Enhanced hydrogen capacity and absorption rate of LaNi <sub>4.25</sub> Al <sub>0.75</sub> alloy in impure hydrogen by a combined approach of fluorination and palladium deposition. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 3465-3469	6.7	16
1084	Surface valence transformation during thermal activation and hydrogenation thermodynamics of MgNi melt-spun ribbons. <b>2016</b> , 371, 35-43		13
1083	Effects of temperature and hydrogen pressure on the activation behavior of ZrCo. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 10811-10818	6.7	31
1082	Severely deformed ZK60+2.5% Mm alloy for hydrogen storage produced by two different processing routes. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 11284-11292	6.7	21
1081	Structures and Hydrogen Storage Properties of La <sub>1-x</sub> Mg <sub>x</sub> Ni <sub>4.25</sub> Al <sub>0.75</sub> (x=0.0, 0.1, 0.2, 0.3) Alloys. <b>2016</b> , 45, 56-61		3
1080	Point-defect kinetics in $\delta$ and $\epsilon$ MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 5688-5692	6.7	9
1079	Investigation on hydrogen absorption/desorption properties of as-cast La(1-x)Mg <sub>x</sub> Ni <sub>4.25</sub> Al <sub>0.75</sub> (x = 0.0, 0.1, 0.2, 0.3) alloys for tritium storage. <b>2016</b> , 27, 1		3
1078	An active, stable and recyclable Ru(II) tetrakisphosphine-based catalytic system for hydrogen production by selective formic acid dehydrogenation. <b>2016</b> , 6, 6504-6512		29
1077	Role of Ni addition on hydrogen storage characteristics of ZrV <sub>2</sub> Laves phase compounds. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 10391-10404	6.7	22
1076	Site preference and diffusion of hydrogen during hydrogenation of Mg: A first-principles study. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 3508-3516	6.7	12
1075	Effect of porosity and carbon composition on pore microstructure of magnesium/carbon nanotube composite foams. <b>2016</b> , 89, 978-987		19
1074	Review of hydrogen storage in AB <sub>3</sub> alloys targeting stationary fuel cell applications. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 3485-3507	6.7	48

1073	Mesoporous silica nanosphere supported platinum nanoparticles (Pt@MSN): one-pot synthesis and catalytic hydrogen generation. <b>2016</b> , 6, 10438-10441		20
1072	Structural and electrochemical hydrogen storage properties of MgTiNi <sub>x</sub> (x=0.1, 0.5, 1, 2) alloys prepared by ball milling. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 11761-11766	6.7	21
1071	Hydrogen storage at low temperature and high pressure for application in automobile manufacturing. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 1744-1758	6.7	27
1070	An improved model for metal-hydrogen storage tanks [Part 1: Model development. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 3537-3550	6.7	22
1069	Ab initio study of structural, mechanical, thermal and electronic properties of perovskites Sr(Li,Pd)H <sub>3</sub> . <b>2016</b> , 30, 1650003		6
1068	Catalytic effect of Nb <sub>2</sub> O <sub>5</sub> on dehydrogenation kinetics of NaAlH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 8264-8270	6.7	9
1067	Hydrogen storage properties and mechanisms of a Mg(BH <sub>4</sub> ) <sub>2</sub> ·2NH <sub>3</sub> /NaAlH <sub>4</sub> combination system. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 2788-2796	6.7	11
1066	Preparation of Ferrotitanium from Ilmenite by Electrolysis-Assisted Calciothermic Reduction in CaCl <sub>2</sub> -NaCl Molten Salt. <b>2016</b> , 68, 532-539		14
1065	Origin of distinct hydrogen absorption behavior of Zr <sub>2</sub> Pd and ZrPd <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 1736-1743	6.7	3
1064	Palladium based nanomaterials for enhanced hydrogen spillover and storage. <b>2016</b> , 19, 100-108		116
1063	Investigation on preparation and hydrogen storage performance of Mg <sub>17</sub> Al <sub>12</sub> alloy. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 1759-1765	6.7	22
1062	Experimental set-up for investigations of hydrogen-sorption characteristics of carbon nanomaterials. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 401-406	6.7	6
1061	Solar-powered electrochemical energy storage: an alternative to solar fuels. <b>2016</b> , 4, 2766-2782		92
1060	Superior catalytic activity derived from a two-dimensional Ti <sub>3</sub> C <sub>2</sub> precursor towards the hydrogen storage reaction of magnesium hydride. <b>2016</b> , 52, 705-8		160
1059	Ternary LiBH <sub>4</sub> /MgH <sub>2</sub> /NaAlH <sub>4</sub> hydride confined into nanoporous carbon host for reversible hydrogen storage. <b>2016</b> , 90, 80-86		19
1058	Porous nanoMoC@graphite shell derived from a MOFs-directed strategy: an efficient electrocatalyst for the hydrogen evolution reaction. <b>2016</b> , 4, 6006-6013		158
1057	Formation of Mg <sub>x</sub> Nb <sub>y</sub> O <sub>x+y</sub> through the Mechanochemical Reaction of MgH <sub>2</sub> and Nb <sub>2</sub> O <sub>5</sub> , and Its Effect on the Hydrogen-Storage Behavior of MgH <sub>2</sub> . <b>2016</b> , 17, 178-83		20
1056	Synthesis of highly dispersed nanosized LaNi <sub>5</sub> on carbon: Revisiting particle size effects on hydrogen storage properties. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 14429-14436	6.7	12

1055	New nanostructured phases with reversible hydrogen storage capability in immiscible magnesium-zirconium system produced by high-pressure torsion. <b>2016</b> , 108, 293-303		54
1054	Predicting 1,3,5,7-tetrakis(4-aminophenyl)adamantine based covalent-organic frameworks as hydrogen storage materials. <b>2016</b> , 6, 21517-21525		4
1053	Hydrogen storage in heavily deformed ZK60 alloy modified with 2.5wt.% Mn addition. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 4177-4184	6.7	16
1052	Ab initio calculations of L10 FePdH multilayered structure. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 4719-4728	6.7	2
1051	Intramolecular Hydride Transfer Reactions in (Formazanate)Boron Dihydride Complexes. <b>2016</b> , 35, 534-542		15
1050	Hydrogen Storage in the Expanded Pore Metal-Organic Frameworks M <sub>2</sub> (dobpdc) (M = Mg, Mn, Fe, Co, Ni, Zn). <b>2016</b> , 28, 1128-1138		140
1049	Delaminated MoS <sub>2</sub> as a structural and functional modifier for MgH <sub>2</sub> [Better hydrogen desorption kinetics through induced worm-like morphologies. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 3551-3560	6.7	5
1048	Heat exchanger selection and design analyses for metal hydride heat pump systems. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 4198-4213	6.7	10
1047	Improving the estimation quality of parameters in kinetic models for hydriding/dehydriding reactions: An OED study. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 5176-5187	6.7	1
1046	The mechanism of controllable dehydrogenation: CPMD study of M(BH <sub>4</sub> ) <sub>x</sub> (NH <sub>3</sub> ) <sub>y</sub> (M = Li, Mg) decomposition. <b>2016</b> , 18, 7015-8		9
1045	Effect of Na <sub>3</sub> FeF <sub>6</sub> catalyst on the hydrogen storage properties of MgH <sub>2</sub> . <b>2016</b> , 45, 7085-93		55
1044	Three-dimensional CFD simulation of geyser boiling in a two-phase closed thermosyphon. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 16463-16476	6.7	62
1043	Synthesis of Nitrogen-doped Niobium Dioxide and its co-catalytic effect towards the electrocatalysis of oxygen reduction on platinum. <b>2016</b> , 195, 166-174		11
1042	Interface and strain effects on the H-sorption thermodynamics of size-selected Mg nanodots. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 9841-9851	6.7	12
1041	Bond activation through tunneling: formation of the boron hydride cations BH <sub>n</sub> (+) (n = 2, 4, 6). <b>2016</b> , 18, 4063-70		4
1040	Unravelling the hydrogen absorption process in Pd overlayers on a Au(111) surface. <b>2016</b> , 18, 3659-68		9
1039	Metal nanoparticles supported on two-dimensional graphenes as heterogeneous catalysts. <b>2016</b> , 312, 99-148		222
1038	Hydrogenation thermodynamics of melt-spun magnesium rich Mg-Ni nanocrystalline alloys with the addition of multiwalled carbon nanotubes and TiF <sub>3</sub> . <b>2016</b> , 306, 437-447		50

1037	A DFT study of hydrogen storage in Zr(Cr 0.5 Ni 0.5 ) 2 Laves phase. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 2700-2710	6.7	11
1036	Hydrogen storage and spillover kinetics in carbon nanotube-Mg composites. <i>International Journal of Hydrogen Energy</i> , <b>2016</b> , 41, 2814-2819	6.7	24
1035	Metal-free catalytic hydrogen production from a polymethylhydrosilane-water mixture. <b>2016</b> , 6, 5903-5906		5
1034	Synthesis of TiO <sub>2</sub> /rGO Nanocomposites with Enhanced Photoelectrochemical Performance and Photocatalytic Activity. <b>2016</b> , 11, 1650007		7
1033	Electrochemical Hydrogen Storage Capacity of Ti <sub>0.9</sub> Zr <sub>0.1</sub> Mn <sub>1.2</sub> V <sub>0.4</sub> Cr <sub>0.4</sub> Alloy Synthesized by Ball Milling and Annealing. <b>2016</b> , 69, 1327-1333		1
1032	Stabilization of volatile Ti(BH) by nano-confinement in a metal-organic framework. <b>2016</b> , 7, 666-672		24
1031	Comparative evaluation of sizing of metal hydride (MH) hydrogen storage tank filled with different alloys. <b>2016</b> , 13, 911-917		1
1030	Conceptual density functional theory (DFT) approach to all-metal aromaticity and hydrogen storage. <b>2016</b> , 243-280		
1029	Rhodium(0) nanoparticles supported on nanosilica: Highly active and long lived catalyst in hydrogen generation from the methanolysis of ammonia borane. <b>2016</b> , 181, 716-726		58
1028	Can the degree of crystallinity of ball-milled Mg <sub>2</sub> Ni intermetallic compound decide its electrochemical characteristics?. <b>2016</b> , 34, 134-142		4
1027	A novel water-splitting electrochemical cycle for hydrogen production using an intermediate electrode. <b>2017</b> , 157, 200-208		14
1026	Influence of micro-amount O <sub>2</sub> or N <sub>2</sub> on the hydrogenation/dehydrogenation kinetics of hydrogen-storage material MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 8057-8062	6.7	11
1025	Synthesis of Magnesium Nanofibers by Electroless Reduction and their Hydrogen Interaction Properties. <b>2017</b> , 34, 1600276		8
1024	Evolution of the active species and catalytic mechanism of Ti doped NaAlH <sub>4</sub> for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 6088-6095	6.7	24
1023	Dimensional effects of nanostructured Mg/MgH <sub>2</sub> for hydrogen storage applications: A review. <b>2017</b> , 72, 523-534		177
1022	Anisotropic hydrogen diffusion in $\beta$ -Zr and Zircaloy predicted by accelerated kinetic Monte Carlo simulations. <b>2017</b> , 7, 41033		28
1021	Effects of VF <sub>4</sub> on the hydriding cycling at 373 K and dehydriding of Mg <sub>99</sub> Ni prepared by hydriding combustion synthesis and mechanical milling (HCS+MM). <b>2017</b> , 698, 913-920		5
1020	Hydrogen storage properties of a Mg-La-Fe-H nano-composite prepared through reactive ball milling. <b>2017</b> , 701, 208-214		31

1019	Micro-alloyed Mg <sub>2</sub> Ni for better performance as negative electrode of Ni-MH battery and hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 5220-5226	6.7	20
1018	Improved hydrogen release from magnesium borohydride by ZrCl <sub>4</sub> additive. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 22342-22347	6.7	20
1017	Hydrogen and deuterium interaction of NaAlH <sub>4</sub> x D <sub>2</sub> (0.00004) and its kinetics isotope effect. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 6160-6165	6.7	1
1016	Effect on specific capacity and de-hydrogenation efficiency in doped-MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 327-339	6.7	5
1015	Development of vanadium based hydrogen storage material: A review. <b>2017</b> , 72, 791-800		99
1014	Direct visualization of hydrogen absorption dynamics in individual palladium nanoparticles. <b>2017</b> , 8, 14020		72
1013	The effects of additives on the combustion characteristics of aluminum powder in steam. <b>2017</b> , 7, 5725-5732		13
1012	The Use of Neutron and Synchrotron Research for Aerospace and Automotive Materials and Components. <b>2017</b> , 327-364		
1011	Impact of initial catalyst form on the 3D structure and performance of ball-milled Ni-catalyzed MgH <sub>2</sub> for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 5177-5187	6.7	14
1010	Dehydrogenation-hydrogenation characteristics of nanocrystalline Mg <sub>2</sub> Ni powders compacted by high-pressure torsion. <b>2017</b> , 702, 84-91		29
1009	Study on the thermal decomposition of NaBH <sub>4</sub> catalyzed by ZrCl <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 22432-22437	6.7	30
1008	Theoretical study of the temperature dependent hydrogen storage capacity of Pd and Ti nanoparticles. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 11501-11509	6.7	2
1007	Enabling the metal fuel economy: green recycling of metal fuels. <b>2017</b> , 1, 615-625		31
1006	The meeting of hydrogen and automotive: A review. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 23334-23346	6.7	83
1005	Effect of hydrogen on Fe and Pd alloying and physical properties. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 6885-6901	6.7	1
1004	The hydrogen storage properties of Mg-Li-Al composite system catalyzed by K <sub>2</sub> ZrF <sub>6</sub> . <b>2017</b> , 104, 214-220		15
1003	On enhanced hydrogen adsorption on alkali (cesium) doped C <sub>60</sub> and effects of the quantum nature of the H <sub>2</sub> molecule on physisorption energies. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 3078-3086	6.7	27
1002	Standardized hydrogen storage module with high utilization factor based on metal hydride-graphite composites. <b>2017</b> , 342, 970-979		13



1001	Experimental study of the influences substitution from Ni by Co, Al and Mn on the hydrogen storage properties of LaNi <sub>3.6</sub> Mn <sub>0.3</sub> Al <sub>0.4</sub> Co <sub>0.7</sub> alloy. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 10081-10088	6.7	15
1000	Nanotechnology for the Storage of Hydrogen. <b>2017</b> , 433-458		1
999	Elastic properties of perovskite-type hydrides LiBeH <sub>3</sub> and NaBeH <sub>3</sub> for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 10038-10046	6.7	23
998	Alkali metal silanides $\text{MSiH}_3$ : A family of complex hydrides for solid-state hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 12405-12413	6.7	9
997	Hydrogen storage properties of 2Mg-Fe mixtures processed by hot extrusion at different temperatures. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 11493-11500	6.7	6
996	Reactivity of hydride bridges in a high-spin [Fe( $\eta$ -H)] cluster: reversible H/CO exchange and Fe-H/B-F bond metathesis. <b>2017</b> , 8, 4123-4129		13
995	Effect of TiH <sub>2</sub> Particle Size and Content on the Underwater Explosion Performance of RDX-Based Explosives. <b>2017</b> , 42, 791-798		8
994	Role of milling time and Ni content on dehydrogenation behavior of MgH <sub>2</sub> /Ni composite. <b>2017</b> , 27, 569-577		23
993	Renewable energy: Present research and future scope of Artificial Intelligence. <b>2017</b> , 77, 297-317		122
992	Hydrogen storage behavior of nanocrystalline and amorphous LaMg <sub>12</sub> Ni-based LaMg <sub>12</sub> -type alloys synthesized by mechanical milling. <b>2017</b> , 27, 551-561		8
991	Photocatalytic water splitting solar-to-hydrogen energy conversion: Perovskite-type hydride XBeH <sub>3</sub> (X = Li or Na) as active photocatalysts. <b>2017</b> , 351, 119-129		12
990	Sustainable hydrogen generation substrates, catalysts and methods: An overview. <b>2017</b> ,		1
989	Hydrogen storage thermodynamics and kinetics of RE <sub>2</sub> Mg <sub>12</sub> Ni-based alloys prepared by mechanical milling. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 18473-18483	6.7	12
988	Thermodynamics and kinetics of hydrogen absorption-desorption of vanadium synthesized by aluminothermy. <b>2017</b> , 130, 721-726		6
987	Improved hydrogen storage kinetics of nanocrystalline and amorphous Pr-Mg-Ni-based PrMg <sub>12</sub> -type alloys synthesized by mechanical milling. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 18452-18464	6.7	5
986	Removal or storage of environmental pollutants and alternative fuel sources with inorganic adsorbents via host-guest encapsulation. <b>2017</b> , 5, 10746-10771		33
985	Hydrogen Environment Assisted Cracking of a Modern Ultra-High Strength Martensitic Stainless Steel. <b>2017</b> , 73, 1132-1156		9
984	The rotational dynamics of H adsorbed in covalent organic frameworks. <b>2017</b> , 19, 13075-13082		13

983	Metal organic frameworks with immobilized nanoparticles: Synthesis and applications in photocatalytic hydrogen generation and energy storage. <b>2017</b> , 96, 385-394		28
982	Computational investigation and comparison of hydrogen storage properties of B <sub>24</sub> N <sub>24</sub> and Al <sub>24</sub> N <sub>24</sub> nanocages. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 14166-14180	6.7	4
981	Density Functional Theory and ab Initio Molecular Dynamics Investigation of Hydronium Interactions with Graphene. <b>2017</b> , 110, 518-522		4
980	Palladium decorated silicon carbide nanocauliflowers for hydrogen gas sensing application. <b>2017</b> , 242, 694-699		34
979	Stress/strain effects on thermodynamic properties of magnesium hydride: A brief review. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 16603-16610	6.7	17
978	How does TiF <sub>4</sub> affect the decomposition of MgH <sub>2</sub> and its complex variants? [An XPS investigation. <b>2017</b> , 5, 15543-15551		43
977	Effects of Cu and Y substitution on hydrogen storage performance of TiFe <sub>0.86</sub> Mn <sub>0.1</sub> Y <sub>0.1</sub> Co <sub>x</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 16620-16631	6.7	22
976	Pd/ZnO nanorods based sensor for highly selective detection of extremely low concentration hydrogen. <b>2017</b> , 7, 236		74
975	Synergic effect of ZrCl <sub>4</sub> on thermal dehydrogenation kinetics of KBH <sub>4</sub> . <b>2017</b> , 718, 134-138		15
974	Modeling of nonlinear hydrogen diffusion in titanium hydrides TiH <sub>x</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 22610-22614	6.7	12
973	Microstructural Evolution and Strengthening of AM90 Magnesium Alloy Processed by ECAP. <b>2017</b> , 42, 4635-4647		15
972	Synergetic effects of K, Ti and F on the hydrogen storage properties of the LiNH system. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 17149-17156	6.7	4
971	Hydrogen storage properties of core-shell structured Mg@TM (TM = Co, V) composites. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 15246-15255	6.7	32
970	Hydrogen Storage Technologies for Future Energy Systems. <b>2017</b> , 8, 445-471		141
969	Study of hydrogen storage capacity of Ti induced by ion irradiation. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 14199-14204	6.7	2
968	Ab initio study of the structural stability, elastic, electronic and optical properties of NaMgHiFj [(i, j) = (3, 0), (2, 1), (1, 2), (0, 3)] compounds. <b>2017</b> , 261, 10-16		1
967	Hydride oxidation from a titanium-aluminum bimetallic complex: insertion, thermal and electrochemical reactivity. <b>2017</b> , 8, 5153-5160		12
966	Effect of initial powder type on the hydrogen storage properties of high-pressure torsion consolidated Mg. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 22438-22448	6.7	21

965	Improvement on hydrogen storage thermodynamics and kinetics of the as-milled SmMg <sub>11</sub> Ni alloy by adding MoS <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 17157-17166	6.7	7
964	A theoretical study on the hydrogen storage properties of planar (AlN) <sub>n</sub> clusters (n = 3-5). <b>2017</b> , 28, 1717-17226		
963	Effect of hydrogen content on hydrogen desorption kinetics of titanium hydride. <b>2017</b> , 709, 445-452		16
962	A simple and efficient hydrogen production-storage hybrid system (Co/TiO <sub>2</sub> ) for synchronized hydrogen photogeneration with uptake. <b>2017</b> , 5, 9198-9203		20
961	Selective storage and evolution of hydrogen on nafion/NaCl/graphene quantum dot mixed matrix using tensammetry as power electrochemical technique. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 9428-9439	6.7	2
960	Theoretical design of stable hydride clusters: isoelectronic transformation in the EnAl <sub>4</sub> BH <sub>7</sub> +n series. <b>2017</b> , 7, 16069-16077		3
959	In-situ powder neutron diffraction study on the formation process of LaMg <sub>2</sub> NiH <sub>7</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 22449-22453	6.7	10
958	Nickel nanoparticle-doped and steam-modified multiscale structure of carbon micro-nanofibers for hydrogen storage: Effects of metal, surface texture and operating conditions. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 6104-6117	6.7	24
957	Current research trends and perspectives on materials-based hydrogen storage solutions: A critical review. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 289-311	6.7	257
956	Elaboration and electrochemical characterization of MgNi hydrogen storage alloy electrodes for Ni/MH batteries. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 8098-8108	6.7	14
955	Single-use paper-based hydrogen fuel cells for point-of-care diagnostic applications. <b>2017</b> , 342, 442-451		40
954	Processing of MgH <sub>2</sub> by extensive cold rolling under protective atmosphere. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 2201-2208	6.7	11
953	A start of the renaissance for nickel metal hydride batteries: a hydrogen storage alloy series with an ultra-long cycle life. <b>2017</b> , 5, 1145-1152		38
952	Thermodynamic and electric study of the LaNi <sub>3</sub> ,6Al <sub>0</sub> ,4Co <sub>0</sub> ,7Mn <sub>0</sub> ,3 alloy. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 2209-2214	6.7	13
951	The renaissance of hydrides as energy materials. <b>2017</b> , 2,		240
950	Formic Acid as a Hydrogen Energy Carrier. <b>2017</b> , 2, 188-195		349
949	Ultrafine platinum nanoparticles modified on cotton derived carbon fibers as a highly efficient catalyst for hydrogen evolution from ammonia borane. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 29244-29253	6.7	22
948	Simulation and design of catalytic membrane reactor for hydrogen production via methylcyclohexane dehydrogenation. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 26296-26307	6.7	24

947	Synthesis and characterization of a Mg Ni-RE alloy for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 26333-26342	6.7	3
946	Dissociative Adsorption of Molecular Hydrogen on BN-Doped Graphene-Supported Aluminum Clusters. <b>2017</b> , 121, 26493-26498		6
945	Experimental observation of hysteresis in a coherent metal-hydride phase transition. <b>2017</b> , 29, 495701		3
944	Power-Law Kinetic Models for Synthesis of Ammonia Borane. <b>2017</b> , 49, 875-883		1
943	Pitfalls in the characterisation of the hydrogen sorption properties of materials. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 29320-29343	6.7	28
942	Implementation of hydrogen plasma activation of Mg powder in two steps hydrogenation. <b>2017</b> , 128, 108-113		
941	Microstructures and hydrogen storage properties of LaNiFeVMn alloys. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 27154-27164	6.7	40
940	Sparse fulleryne structures enhance potential hydrogen storage and mobility. <b>2017</b> , 5, 21223-21233		5
939	Rapid Diffusion and Nanosegregation of Hydrogen in Magnesium Alloys from Exposure to Water. <b>2017</b> , 9, 38125-38134		10
938	Failure mechanism of NaAlH <sub>4</sub> negative electrodes in lithium cells. <b>2017</b> , 253, 218-226		6
937	Cu-Loaded organo-montmorillonite with improved affinity towards hydrogen: an insight into matrix-metal and non-contact hydrogen-metal interactions. <b>2017</b> , 19, 29333-29343		12
936	Investigation of Mn <sub>2</sub> O <sub>3</sub> as impurity on the electrochemical hydrogen storage performance of MnO <sub>2</sub> CeO <sub>2</sub> nanocomposites. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 28473-28484	6.7	27
935	Hierarchically Controlled Inside-Out Doping of Mg Nanocomposites for Moderate Temperature Hydrogen Storage. <b>2017</b> , 27, 1704316		49
934	Beryllium-doped single-walled carbon nanotubes with Stone-Wales defects: A promising material to store hydrogen at room temperature. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 24237-24246	6.7	9
933	Phase diagrams of the LiBH-NaBH-KBH system. <b>2017</b> , 19, 25071-25079		15
932	Hydrogen storage properties of activated carbon confined LiBH <sub>4</sub> doped with CeF <sub>3</sub> as catalyst. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 23010-23017	6.7	14
931	Tailoring the hydrogen absorption desorption's dynamics of MgMgH <sub>2</sub> system by titanium suboxide doping. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 21841-21848	6.7	7
930	Thermal and Structural Aspects of the Hydride-Conducting Oxyhydride LaLiHO Obtained via a Halide Flux Method. <b>2017</b> , 56, 11123-11128		14

929	Phase Stability, Phase Mixing, and Phase Separation in Fluorinated Alkaline Earth Hydrides. <b>2017</b> , 121, 21806-21820		6
928	Stereodynamics of Diatom Formation through Eley-Bideal Abstraction. <b>2017</b> , 121, 19849-19858		13
927	Hydrogen Chemisorption on Singly Vanadium-Doped Aluminum Clusters. <b>2017</b> , 23, 15638-15643		20
926	Electrochemical hydrogen storage: Opportunities for fuel storage, batteries, fuel cells, and supercapacitors. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 25143-25165	6.7	156
925	First principles study of dehydrogenation properties of alkali/alkali-earth metal doped Mg <sub>7</sub> TiH <sub>16</sub> . <b>2017</b> , 728, 1016-1022		3
924	The enhanced de/re-hydrogenation performances of LiNa <sub>2</sub> AlH <sub>6</sub> combined with two-dimension lamellar Ti <sub>3</sub> C <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 25285-25293	6.7	9
923	AB-initio study of pressure-induced aluminum hydrides AlH <sub>4</sub> (A = Li, Na, K, Rb, Cs). <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 25303-25309	6.7	5
922	A computational study on hydrogen storage in potential wells using K-intercalated graphite oxide. <b>2017</b> , 7, 33953-33960		
921	Enhancement of hydrogen sorption properties of MgH <sub>2</sub> with a MgF <sub>2</sub> catalyst. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 20120-20124	6.7	27
920	Aluminum-based materials for advanced battery systems. <b>2017</b> , 60, 577-607		4
919	Hysteresis phenomena on the crystal lattice of Ti <sub>0.8</sub> Zr <sub>0.2</sub> Mn <sub>1.5</sub> in the hydrogenation and dehydrogenation process. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 16667-16674	6.7	1
918	High-capacity silicon electrodes obtained from the hydrogen production process by aluminum alloy hydrolysis. <b>2017</b> , 799, 424-430		2
917	Atomically Thin Interfacial Suboxide Key to Hydrogen Storage Performance Enhancements of Magnesium Nanoparticles Encapsulated in Reduced Graphene Oxide. <b>2017</b> , 17, 5540-5545		27
916	Exceptional high selectivity of hydrogen/methane separation on a phosphonate-based MOF membrane with exclusion of methane molecules. <b>2017</b> , 53, 9797-9800		20
915	Tuning Mg hydriding kinetics with nanocarbons. <b>2017</b> , 725, 616-622		13
914	Elucidating the process of hydrogen generation from the reaction of sodium hydroxide solution and ferrosilicon. <b>2017</b> , 41, 1740-1748		5
913	Effect of cold rolling on the structure and hydrogen properties of AZ91 and AM60D magnesium alloys processed by ECAP. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 21822-21831	6.7	13
912	Electrochemical hydriding of nanocrystalline Mg-Ni-X (X = Co, Mn, Nd) alloys prepared by mechanical alloying and spark plasma sintering. <b>2017</b> , 726, 787-795		7

911	Theoretical investigation of interaction of hydrogen and intermetallic compound YCo <sub>5</sub> . <b>2017</b> , 726, 1085-1091		
910	Porous silicon filled with Pd/WO <sub>3</sub> /ZnO composite thin film for enhanced H <sub>2</sub> gas-sensing performance. <b>2017</b> , 7, 39666-39675		27
909	Electro-optical properties, decomposition pathways and the hydrostatic pressure-dependent behaviours of a double-cation hydrogen storage material of (hbox {Al}_{3}hbox {Li}_{4}(hbox {BH}_{4})_{13}). <b>2017</b> , 40, 907-915		1
908	Hydrogen storage properties of highly cross-linked polymers derived from chlorinated polypropylene and polyethylenimine. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 23028-23034	6.7	8
907	Isothermal activation, thermodynamic and hysteresis of MgH <sub>2</sub> hydrides catalytically modified by high-energy ball milling with MWCNTs and TiF <sub>3</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 22953-22964	6.7	22
906	Effect of Nanosilver/Water-in-Kerosene Emulsion on NO <sub>x</sub> Reduction and Enhancement of Thermal Characteristics of a Liquid Fuel Burner. <b>2017</b> , 31, 14288-14295		10
905	Effect of Mn substitution for Co on the structural, kinetic, and thermodynamic characteristics of ZrCo <sub>1-x</sub> Mn <sub>x</sub> (x=0.1) alloys for tritium storage. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 28498-28506	6.7	17
904	Improved dehydrogenation kinetics of MgH <sub>2</sub> due to NiMnAl. <b>2017</b> , 4, 116520		5
903	Effect of Pd loading on hydrogen storage properties of disordered mesoporous hollow carbon spheres. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 30461-30469	6.7	18
902	Performance characterization of zero carbon emission microgrid in subtropical climate based on experimental energy and exergy analyses. <b>2017</b> , 154, 224-243		11
901	Light metal borohydrides/amides combined hydrogen storage systems: composition, structure and properties. <b>2017</b> , 5, 25112-25130		34
900	Effect of Cu on dehydrogenation and thermal stability of amorphous Mg-Ce-Ni-Cu alloys. <b>2017</b> , 27, 622-626		14
899	A review on onBoard challenges of magnesiumBased hydrogen storage materials for automobile applications. <b>2017</b> ,		4
898	The roles of Ni nanoparticles over CdS nanorods for improved photocatalytic stability and activity. <b>2017</b> , 111, 687-695		25
897	High temperature metal hydrides for energy systems Part A: Numerical model validation and calibration. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 16195-16202	6.7	10
896	Effect of metal hydride properties in hydrogen absorption through 2D-axisymmetric modeling and experimental testing in storage canisters. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 19114-19123	6.7	17
895	Ca-decorated borophene as potential candidates for hydrogen storage: A first-principle study. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 20036-20045	6.7	53
894	Review: on rare-earth perovskite-type negative electrodes in nickelHydride (Ni/H) secondary batteries. <b>2017</b> , 6, 1		14



893	Adsorption of hydrogen molecule on noble metal doped on oxygen-vacancy defect of anatase TiO <sub>2</sub> (101) surface: Periodic DFT study. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 19106-19113	6.7	19
892	Improving dehydrogenation properties of Mg/Nb composite films via tuning Nb distributions. <b>2017</b> , 36, 574-580		9
891	Formation and electronic properties of palladium hydrides and palladium-rhodium dihydride alloys under pressure. <b>2017</b> , 7, 3520		13
890	Hydrogen generation of mechanochemically activated Al Bi In composites. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 16589-16602	6.7	32
889	Experimental and first principle studies on hydrogen desorption behavior of graphene nanofibre catalyzed MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 960-968	6.7	32
888	A Highly Porous Carbon Support Rich in Graphitic-N Stabilizes Copper Nanocatalysts for Efficient Ethanol Dehydrogenation. <b>2017</b> , 9, 505-510		21
887	Low-Temperature Fuel Cell Technology for Green Energy. <b>2017</b> , 3039-3085		1
886	Synthesis and hydrogen storage properties of core-shell structured binary Mg@Ti and ternary Mg@Ti@Ni composites. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 2239-2247	6.7	37
885	Impact of using a heat transfer fluid pipe in a metal hydride-phase change material tank. <b>2017</b> , 113, 554-565		40
884	Reactive insights into the selective dehydrogenation of ethylene diamine bisborane facilitated by phosphonium based Ionic Liquids. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 2756-2770	6.7	13
883	Insights from a Recent Meeting: Current Status and Future Directions in Magnesium Corrosion Research. <b>2017</b> , 73, 452-462		22
882	Dissociation and diffusion of hydrogen on defect-free and vacancy defective Mg (0001) surfaces: A density functional theory study. <b>2017</b> , 394, 371-377		22
881	Novel MAX-phase Ti <sub>3</sub> AlC <sub>2</sub> catalyst for improving the reversible hydrogen storage properties of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 4244-4251	6.7	30
880	Tunable hydrogen generation from sodium borohydride with silicon carbonitride functionalized carbon nanostructure electrode. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 5447-5454	6.7	1
879	Theoretical study of hydrogen desorption on Mg 50 Ni 50 using statistical physics treatment. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 8733-8743	6.7	7
878	Properties of composites of metal hydride alloys synthesized by mechanical milling. <b>2017</b> , 21, 153-160		2
877	Hydride-Based Solid Oxide Fuel Cell Battery Hybrid Electrochemical System. <b>2017</b> , 5, 616-622		1
876	Thermodynamic Evaluation and Carbon Footprint Analysis of the Application of Hydrogen-Based Energy-Storage Systems in Residential Buildings. <b>2017</b> , 5, 495-509		11



875	A comparative overview of hydrogen production processes. <b>2017</b> , 67, 597-611		1004
874	Experimental assessment on thermal storage performance of beeswax in a helical tube embedded storage unit. <b>2017</b> , 111, 358-368		17
873	Effect on de-hydrogenation efficiency on doping of rare earth elements (Pr, Nd, Gd, Dy) in MgH <sub>2</sub> □ A density functional theory study. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 1012-1017	6.7	13
872	Hydrogen adsorption on activated carbons prepared from olive waste: effect of activation conditions on uptakes and adsorption energies. <b>2017</b> , 24, 1-11		18
871	Review on sorption materials and technologies for heat pumps and thermal energy storage. <b>2017</b> , 110, 3-39		126
870	Penetration and diffusion of hydrogen in Mg <sub>2</sub> Ni: A first-principles investigation. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 3097-3105	6.7	6
869	Quasi-2D liquid cell for high density hydrogen storage. <b>2017</b> , 31, 218-224		19
868	Application of dielectric barrier discharge plasma-assisted milling in energy storage materials □ review. <b>2017</b> , 691, 422-435		248
867	Improvement of the kinetics of hydrogen release from ammonia borane confined in silica aerogel. <b>2017</b> , 237, 189-200		17
866	In situ synchrotron X-ray diffraction study on the rehydrogenation behavior of MgH <sub>2</sub> -LiAlH <sub>4</sub> composites. <b>2017</b> ,		0
865	A new synthesis route of ammonia production through hydrolysis of metal □Nitrides. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 24897-24903	6.7	19
864	Hydrogen storage properties of MgH <sub>2</sub> co-catalyzed by LaH <sub>3</sub> and NbH. <b>2017</b> , 24, 1183-1191		17
863	Study the effect of SrFe <sub>12</sub> O <sub>19</sub> on MgH <sub>2</sub> /LiAlH <sub>4</sub> composite for solid-state hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 29830-29839	6.7	21
862	Pocket Electrodes as Hydrogen Storage Units of High-Capacity. <b>2017</b> , 164, A2555-A2558		11
861	Microstructure and Hydrogen Storage Properties of Ti <sub>1</sub> V <sub>0.9</sub> Cr <sub>1.1</sub> Alloy with Addition of x wt % Zr (x = 0, 2, 4, 8, and 12). <b>2017</b> , 5, 86		3
860	The Improvement of Dehydrogenating the Kinetics of NaMgH <sub>3</sub> Hydride via Doping with Carbon Nanomaterials. <b>2017</b> , 7, 9		9
859	A Critical Review of Mg-Based Hydrogen Storage Materials Processed by Equal Channel Angular Pressing. <b>2017</b> , 7, 324		32
858	Synthesis characterization and hydrogenation behaviour of as quenched Ti <sub>41.5</sub> +XZr <sub>41.5</sub> -XNi <sub>17</sub> (x=0, 3.5, 11.5 and 13.5) nano quasicrystalline ribbons. <b>2017</b> , 809, 012011		2

857	The Effect of Magnetic Field on Thermal-Reaction Kinetics of a Paramagnetic Metal Hydride Storage Bed. <b>2017</b> , 7, 1006		5
856	Thin Film Hydrogen Storages. <b>2017</b> , 1-27		
855	A System Analysis of Storage Alloy for Bio-H <sub>2</sub> in Consideration of the Purification Performance. <b>2017</b> , 96, 266-272		6
854	Metal Hydrides ?. <b>2018</b> ,		4
853	Long-term atomistic simulation of hydrogen absorption in palladium nanocubes using a diffusive molecular dynamics method. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 5657-5667	6.7	8
852	Dual-tuning the thermodynamics and kinetics: Magnesium-naphthalocyanine nanocomposite for low temperature hydrogen cycling. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 5089-5097	6.7	6
851	Magnesium Supported on Nickel Nanobelts for Hydrogen Storage: Coupling Nanosizing and Catalysis. <b>2018</b> , 1, 1272-1279		20
850	Merger of Energetic Affinity and Optimal Geometry Provides New Class of Boron Nitride Based Sorbents with Unprecedented Hydrogen Storage Capacity. <b>2018</b> , 14, e1702863		8
849	Thermodynamic Assessment of the Mn-H and Mg-Mn-H Systems. <b>2018</b> , 39, 186-195		4
848	Benchmark Study of Hydrogen Storage in Metal-Organic Frameworks under Temperature and Pressure Swing Conditions. <b>2018</b> , 3, 748-754		104
847	Fabrication of porous silicon filled Pd/SiC nanocauliflower thin films for high performance H <sub>2</sub> gas sensor. <b>2018</b> , 264, 10-19		30
846	Mg <sub>65</sub> Ni <sub>20</sub> Y <sub>15</sub> Ag <sub>X</sub> (X = 1, 2, 3, 5) alloys prepared via atmosphere controlled induction system. <b>2018</b> , 96, 810-815		2
845	Production and electrochemical characterization of Mg Ni alloys by molten salt electrolysis for NiMH batteries. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 6266-6274	6.7	5
844	Borohydride oxidation reaction mechanisms and poisoning effects on Au, Pt and Pd bulk electrodes: From model (low) to direct borohydride fuel cell operating (high) concentrations. <b>2018</b> , 273, 483-494		54
843	Synthesis and hydrogen storage of La <sub>23</sub> Nd <sub>7.8</sub> Ti <sub>1.1</sub> Ni <sub>33.9</sub> Co <sub>32.9</sub> Al <sub>0.65</sub> alloys. <b>2018</b> , 7, 173-179		2
842	Bypassing renewable variability with a reversible solid oxide cell plant. <b>2018</b> , 217, 101-112		32
841	Bands dispersion and charge transfer in BBeH <sub>2</sub> . <b>2018</b> ,		
840	Microstructure and hydrogen absorption/desorption properties of Mg <sub>24</sub> Y <sub>3</sub> M (M = Ni, Co, Cu, Al) alloys. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 8877-8887	6.7	14

839	Hydrogen production, storage, transportation and key challenges with applications: A review. <b>2018</b> , 165, 602-627		477
838	7-ethylindole: A new efficient liquid organic hydrogen carrier with fast kinetics. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 12688-12696	6.7	20
837	Reversible hydrogenation of the Zintl phases BaGe and BaSn studied by in situ diffraction. <b>2018</b> , 233, 399-409		6
836	Over saturated metallic-Mg-ions diffused hollow carbon nano-spheres/Pt for ultrahigh-performance hydrogen storage. <b>2018</b> , 221, 139-142		3
835	Phenol Catalytic Hydrogenation over Palladium Nanoparticles Supported on Metal-Organic Frameworks in the Aqueous Phase. <b>2018</b> , 10, 2558-2570		28
834	Oxidative treatment effect on TiH <sub>2</sub> powders. <b>2018</b> , 50, 1195-1199		3
833	Assessment of a sustainable energy chain designed for promoting the hydrogen mobility by means of fuel-cell powered bicycles. <b>2018</b> , 153, 200-210		12
832	Mechanosynthesis and Reversible Hydrogen Storage of Mg <sub>2</sub> Ni and Mg <sub>2</sub> Cu Alloys. <b>2019</b> , 60, 441-449		5
831	Improved hydrogen storage performances of Mg-Y-Ni-Cu alloys by melt spinning. <b>2019</b> , 138, 263-271		15
830	Tin, The Enabler-Hydrogen Diffusion into Ruthenium. <b>2019</b> , 9,		10
829	Unconventional Approaches to Hydrogen Sorption Reactions: Non-Thermal and Non-Straightforward Thermally Driven Methods. <b>2019</b> , 20, 1248-1260		1
828	Amphoteric behavior of hydrogen (H <sup>+1</sup> and H <sup>-1</sup> ) in complex hydrides from van der Waals interaction-including ab initio calculations. <b>2019</b> , 7, 6228-6240		4
827	Review on the research of hydrogen storage system fast refueling in fuel cell vehicle. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 10677-10693	6.7	100
826	Edge-Functionalized Graphene Nanoribbon Encapsulation To Enhance Stability and Control Kinetics of Hydrogen Storage Materials. <b>2019</b> , 31, 2960-2970		8
825	Computational study of H binding to MH (M = Ti, V, or Cr). <b>2019</b> , 48, 4921-4930		2
824	Hydrogen storage and delivery: Review of the state of the art technologies and risk and reliability analysis. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 12254-12269	6.7	271
823	The quantum nature of hydrogen. <b>2019</b> , 38, 35-61		11
822	Hydrogen storage in carbon materials—A review. <b>2019</b> , 1, e35		107

821	Machine learning based prediction of metal hydrides for hydrogen storage, part II: Prediction of material class. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 7345-7353	6.7	13
820	Hydrogenation and crystallization of amorphous phase: A new mechanism for the electrochemical capacity and its decay in milled Mg Ni alloys. <b>2019</b> , 305, 145-154		9
819	A DFT Study of Hydrogen Storage in High-Entropy Alloy TiZrHfScMo. <b>2019</b> , 9,		35
818	From biomass and electrolytic hydrogen to substitute natural gas and power: The issue of intermediate gas storages. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 21045-21054	6.7	5
817	The effect of co-adsorbed solvent molecules on H binding to metal alkoxides. <b>2019</b> , 21, 9218-9224		0
816	Large-scale storage of hydrogen. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 11901-11919	6.7	300
815	Recent developments in the fabrication, characterization and implementation of MgH-based solid-hydrogen materials in the Kuwait Institute for Scientific Research.. <b>2019</b> , 9, 9907-9930		23
814	Stability investigation of the $\epsilon$ MgH <sub>2</sub> phase synthesized by high-energy ball milling. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 29179-29188	6.7	12
813	MgTiO <sub>3</sub> H <sub>x</sub> and CaTiO <sub>3</sub> H <sub>x</sub> perovskite compounds for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 11930-11938	6.7	10
812	MOF-74-immobilized ternary Rh Ni P nanoparticles as highly efficient hydrous hydrazine dehydrogenation catalysts in alkaline solutions. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 6383-6391	6.7	16
811	The enhancement of hydrogen storage capacity in Li, Na and Mg-decorated BC <sub>3</sub> graphene by CLICH and RICH algorithms. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 7354-7370	6.7	27
810	Metal Hydrides for Energy Storage. <b>2019</b> , 775-810		2
809	Study on the hydrogen storage properties of the dual active metals Ni and Al doped graphene composites. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 6036-6044	6.7	32
808	Effect of the Inherent Structure of Rh Nanocrystals on the Hydriding Behavior under Pressure. <b>2019</b> , 10, 774-779		3
807	A striking catalytic effect of facile synthesized ZrMn <sub>2</sub> nanoparticles on the de/rehydrogenation properties of MgH <sub>2</sub> . <b>2019</b> , 7, 5626-5634		66
806	A first-principles theoretical study on the potential thermoelectric properties of MgH <sub>2</sub> and CaH <sub>2</sub> . <b>2019</b> , 6, 055510		1
805	Synthesis and characterization of hexanary TiZrVCoNiFe high-entropy Laves phase. <b>2019</b> , 34, 807-818		12
804	Reversible ammonia-based and liquid organic hydrogen carriers for high-density hydrogen storage: Recent progress. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 7746-7767	6.7	87

803	An ab initio study of spectroscopic and thermodynamic characteristics of MgH <sub>2</sub> and TiC systems. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 6756-6762	6.7	3
802	In-Situ/Operando X-ray Characterization of Metal Hydrides. <b>2019</b> , 20, 1261-1271		4
801	Catalytic ammonia decomposition for hydrogen production on Ni, Ru and Ni Ru supported on CeO <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 12693-12707	6.7	57
800	Characterization of microstructure, hydrogen storage kinetics and thermodynamics of a melt-spun Mg <sub>86</sub> Y <sub>10</sub> Ni <sub>4</sub> alloy. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 6728-6737	6.7	17
799	Highly ameliorated gaseous and electrochemical hydrogen storage kinetics of nanocrystalline and amorphous CeMg <sub>12</sub> -type alloys by mechanical milling. <b>2019</b> , 90, 41-48		1
798	Highly Efficient Supported Palladium-Gold Alloy Catalysts for Hydrogen Storage Based on Ammonium Bicarbonate/Formate Redox Cycle. <b>2019</b> , 7, 6522-6530		19
797	Boron-neutron Capture on Activated Carbon for Hydrogen Storage. <b>2019</b> , 9, 2971		8
796	Cyclic stability of the C36-type TiCr <sub>2</sub> Laves phase synthesized in the abnormal glow discharge plasma under hydrogenation. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 6709-6719	6.7	4
795	Catalytic effect of Ti <sub>2</sub> C MXene on the dehydrogenation of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 6787-6794	6.7	23
794	Hydrogen storage in scandium doped small boron clusters (B <sub>n</sub> Sc <sub>2</sub> , n=3-10): A density functional study. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 6019-6030	6.7	18
793	Effect of Hydrogen Corrosion on Key Mechanical Properties of 45 Steel. <b>2019</b> , 631, 022024		
792	Pengaruh Temperatur Aniling Material Mgalti Terhadap Media Penyimpan Hidrogen. <b>2019</b> , 12, 87		
791	Facile Hydrogen Release on the Composites of Lithium Hydride with Carbonaceous and Polymer Materials. <b>2019</b> , 62, 87-96		1
790	Preliminary study on hydrogen storage for fuel of fuel cell using Fe <sub>3</sub> Al metal hydride system. <b>2019</b> , 396, 012008		
789	The Coordination Structure and Activity of Hollow Silica-alumina Composite Spheres for Hydrogen Evolution from Aqueous Ammonia Borane Solution. <b>2019</b> , 98, 312-317		
788	First principles investigations of hydrogen interaction with vacancy-oxygen complexes in vanadium alloys. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 26637-26645	6.7	8
787	Instantaneous one-dimensional ammonia measurements with femtosecond two-photon laser-induced fluorescence (fs-TPLIF). <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 25740-25745	6.7	3
786	Structural, thermodynamic and kinetic factors in the desorption/absorption of a hydrogen molecule in the M <sub>3</sub> AlH <sub>10</sub> N <sub>x</sub> Na (M = Be or Mg; x = 0 or 2) hydrides. <b>2019</b> , 43, 18041-18048		

785	Magnesium oxide clusters as promising candidates for hydrogen storage. <b>2019</b> , 21, 23102-23110		9
784	DFT study for the mechanical and electronic properties of Mg <sub>3</sub> BH <sub>x</sub> (x=1,4,7) compounds for hydrogen storage applications. <b>2019</b> ,		
783	Single-walled carbon nanotubes/lithium borohydride composites for hydrogen storage: role of formed LiB(OH), LiCO and LiBO by oxidation and nitrogen annealing.. <b>2019</b> , 9, 31483-31496		5
782	Synthesis and crystal structure of new compounds from the Y-Mg-Ni system. <b>2019</b> , 234, 19-32		4
781	Carbon layer supported nickel catalyst for sodium borohydride (NaBH <sub>4</sub> ) dehydrogenation. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 2943-2950	6.7	30
780	Full-Dimensional Ab Initio Potential Energy Surface and Vibrational Energy Levels of LiH. <b>2018</b> , 24,		1
779	Processing Magnesium and Its Alloys by High-Pressure Torsion: An Overview. <b>2019</b> , 21, 1801039		35
778	Adiabatic magnesium hydride system for hydrogen storage based on thermochemical heat storage: Numerical analysis of the dehydrogenation. <b>2019</b> , 236, 1034-1048		18
777	Electronic structure, optical and thermoelectric properties of CaMgSi <sub>1-x</sub> Cx (x = 0, 0.5): an ab-initio study. <b>2019</b> , 6, 036307		1
776	H <sub>2</sub> adsorption on Cu(I)-ZSM-5: Exploration of Cu(I)-exchange in solution. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 18866-18874	6.7	4
775	Future perspectives of thermal energy storage with metal hydrides. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 7738-7745	6.7	75
774	A first-principles study of Nb-doped NaAlH <sub>4</sub> (001) surface. <b>2019</b> , 290, 7-11		3
773	A High-Capacity, Reversible Liquid Organic Hydrogen Carrier: H <sub>2</sub> -Release Properties and an Application to a Fuel Cell. <b>2019</b> , 7, 1185-1194		25
772	Yb <sub>5</sub> In <sub>13</sub> H <sub>27</sub> : A complex metal hydride grown from Yb/Li flux. <b>2019</b> , 270, 187-191		1
771	Energetic modeling, simulation and experimental of hydrogen desorption in a hydride tank. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 1034-1046	6.7	16
770	Surface structural alteration of multi-walled carbon nanotubes decorated by nickel nanoparticles based on laser ablation/chemical reduction methods to enhance hydrogen storage properties. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 3812-3823	6.7	11
769	The effects of operating conditions on hydrogen production from sodium borohydride using Box-Wilson optimization technique. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 9811-9816	6.7	9
768	Enhancement of the hydrogen release of Mg(BH <sub>4</sub> ) <sub>2</sub> by concomitant effects of nano-confinement and catalysis. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 4253-4262	6.7	14

767	Effects of substitutional Mo and Cr on site occupation and diffusion of hydrogen in the $\beta$ phase vanadium hydride by first principles calculations. <b>2019</b> , 138, 1		2
766	Effects of adding nano-CeO <sub>2</sub> powder on microstructure and hydrogen storage performances of mechanical alloyed Mg <sub>90</sub> Al <sub>10</sub> alloy. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 1735-1749	6.7	6
765	Direct Hydrogenation of Aluminum via Stabilization with Triethylenediamine: A Mechanochemical Approach to Synthesize the Triethylenediamine $\eta$ -AlH Adduct. <b>2019</b> , 20, 1360-1368		10
764	Interactions of Hydrogen with Pd@MOF Composites. <b>2019</b> , 20, 1282-1295		9
763	Structure and electrochemical performances of as-milled LaMg <sub>12</sub> -type alloy/Ni composites. <b>2019</b> , 26, 59-68		1
762	The effect of ball-milling gas environment on the sorption kinetics of MgH <sub>2</sub> with/without additives for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 2976-2980	6.7	31
761	Atomistic modeling and analysis of hydride phase transformation in palladium nanoparticles. <b>2019</b> , 125, 360-383		7
760	Microwave-Mediated Site-Selective Heating of Spherical-Carbon-Bead-Supported Platinum for the Continuous, Efficient Catalytic Dehydrogenative Aromatization of Saturated Cyclic Hydrocarbons. <b>2019</b> , 7, 3052-3061		13
759	On-board generation of hydrogen to improve in-cylinder combustion and after-treatment efficiency and emissions performance of a hybrid hydrogen/gasoline engine. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 12880-12889	6.7	11
758	Development of an in-air ERDA system for hydrogen analysis. <b>2019</b> , 450, 135-138		4
757	Porous Coordination Polymers. <b>2019</b> , 1-44		2
756	Hydrogen absorption/desorption characteristics of Mg-V-Ni hydrogen storage alloys. <b>2019</b> , 138, 6-9		2
755	Hydrogen storage properties of amorphous and nanocrystalline (Mg <sub>24</sub> Ni <sub>10</sub> Cu <sub>2</sub> ) <sub>100</sub> -Nd ( $x=0.020$ ) alloys. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 5365-5373	6.7	3
754	Elucidating the Role of Temperature and Pressure to the Thermodynamic Stability of Charged Defects in Complex Metal-Hydrides: A Case Study of NaAlH <sub>4</sub> . <b>2019</b> , 123, 62-69		7
753	Single and Polystorage Technologies for Renewable-Based Hybrid Energy Systems. <b>2019</b> , 77-131		12
752	ZIF-67 derived Co@CNTs nanoparticles: Remarkably improved hydrogen storage properties of MgH <sub>2</sub> and synergetic catalysis mechanism. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 1059-1069	6.7	67
751	Gas Convertor and Storage. <b>2019</b> , 27, 387-437		2
750	Co metal nanoparticles incorporated three-dimensional mesoporous graphene nanohybrids for electrochemical hydrogen storage. <b>2019</b> , 269, 151-157		8



749	Synthesis and Applications of Graphdiyne-Based Metal-Free Catalysts. <b>2019</b> , 31, e1803762		92
748	Introduction: hydrogen storage as solution for a changing energy landscape. <b>2019</b> , 4,		2
747	Chemically transformed additive phases in Mg <sub>2</sub> TiO <sub>4</sub> and MgTiO <sub>3</sub> loaded hydrogen storage system MgH <sub>2</sub> . <b>2019</b> , 472, 99-104		12
746	Characteristics of MOF, MWCNT and graphene containing materials for hydrogen storage: A review. <b>2019</b> , 30, 132-144		77
745	Exploring enhanced hydrogen adsorption on Ti doped Al nanoclusters: A DFT study. <b>2019</b> , 518, 123-133		3
744	Phase Transformations in MgH <sub>2</sub> /TiH <sub>2</sub> Hydrogen Storage System by High-Pressure Torsion Process. <b>2020</b> , 22, 1900027		19
743	Fast hydrogenation kinetics of acridine as a candidate of liquid organic hydrogen carrier family with high capacity. <b>2020</b> , 41, 115-119		11
742	One-step formation of hydrogen clusters in clathrate hydrates stabilized via natural gas blending. <b>2020</b> , 24, 655-661		23
741	The destabilization of LiBH <sub>4</sub> through the addition of Bi <sub>2</sub> Se <sub>3</sub> nanosheets. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 23947-23953	6.7	7
740	Electrochemical properties of modified negative electrode for Ni-MH cell. <b>2020</b> , 20, 106-113		4
739	Enhancement of hydrogen storage properties of Ca <sub>3</sub> CH antiperovskite compound with hydrogen doping. <b>2020</b> , 44, 567-573		3
738	Modifying effects and mechanisms of graphene on dehydrogenation properties of sodium borohydride. <b>2020</b> , 55, 1959-1972		5
737	Microfactories for Intracellular Locally Generated Hydrogen Therapy: Advanced Materials, Challenges, and Opportunities. <b>2020</b> , 85, 57-67		1
736	BaMnO nanostructures: Simple ultrasonic fabrication and novel catalytic agent toward oxygen evolution of water splitting reaction. <b>2020</b> , 61, 104829		28
735	Microstructural details of hydrogen diffusion and storage in Ti <sub>40</sub> V <sub>60</sub> alloys activated through surface and bulk severe plastic deformation. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 5326-5336	6.7	13
734	An overview on TiFe intermetallic for solid-state hydrogen storage: microstructure, hydrogenation and fabrication processes. <b>2020</b> , 45, 410-427		19
733	Hydrogen storage properties of filings of the ZK60 alloy modified with 2.5wt% mischmetal. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 5375-5383	6.7	3
732	Crystal structure evolution of complex metal aluminum hydrides upon hydrogen release. <b>2020</b> , 42, 133-143		13

731	Microstructural and morphological investigations on Mg-Nb <sub>2</sub> O <sub>5</sub> -CNT nanocomposites processed by high-pressure torsion for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 7917-7928	6.7	14
730	A study on electrochemical hydrogen storage performance of Copper phthalocyanine rectangular nanocuboids. <b>2020</b> , 146, 497-503		17
729	Nanostructured Bi <sub>2</sub> Te <sub>3</sub> as anode material as well as a destabilizing agent for LiBH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 16992-16999	6.7	11
728	Effect of ammonia and boron modifications on the surface and hydrogen sorption characteristics of activated carbons from coal. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 10494-10506	6.7	11
727	Functionalized graphene materials for hydrogen storage. <b>2020</b> , 55, 1865-1903		63
726	On the properties of the novel CeMgNi <sub>2</sub> T <sub>2</sub> (T = Co, Cu) alloys and their hydrides. <b>2020</b> , 814, 152244		4
725	A review of energy storage types, applications and recent developments. <b>2020</b> , 27, 101047		361
724	Formation of Mn hydrides from bis(trimethylsilylmethyl) Mn(II): A DFT study. <b>2020</b> , 178, 114355		
723	Improving water-splitting efficiency of water electrolysis process via highly conductive nanomaterials at lower voltages. <b>2020</b> , 5, 108-117		3
722	Study of the synthesis of PMMA-Mg nanocomposite for hydrogen storage application. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 4743-4753	6.7	8
721	Thermodynamic analysis of fossil fuels reforming for fuel cell application. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 20232-20239	6.7	7
720	From the perspectives of DFT calculations, thermodynamic modeling, and kinetic Monte Carlo simulations: the interaction between hydrogen and ScC monolayers. <b>2020</b> , 22, 4387-4401		2
719	Experimental study of a metal hydrogen reactor's behavior under the action of an external magnetostatic field during absorption and desorption. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 4673-4684	6.7	4
718	TbMgNi <sub>4-x</sub> Cox(H,D) <sub>2</sub> System. I: Synthesis, Hydrogenation Properties, and Crystal and Electronic Structures. <b>2020</b> , 124, 196-204		5
717	Investigation of Crystal Structure, Microstructure, and Hydrogenation Behavior of Heat-Treated Ti <sub>52</sub> V <sub>12</sub> Cr <sub>36</sub> Alloy. <b>2020</b> , 3, 794-799		3
716	Elucidating reaction equations of TiF <sub>x</sub> (x = 4,3,2) catalysts for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 2818-2828	6.7	3
715	Hydrogen as an energy vector. <b>2020</b> , 120, 109620		194
714	A landscape of hydride compounds for off-board refilling of transport vehicles. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 2954-2966	6.7	4

713	Kinetic effects of pressure on decomposition of solids. <b>2020</b> , 39, 35-66		30
712	Localized surface plasmon resonance (LSPR) detection of hydrogen gas by Pd <sub>2</sub> /Au core/shell like colloidal nanoparticles. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 1158-1169	6.7	7
711	Hydrogenation and magnetocaloric effect in La-excessive La <sub>x</sub> Fe <sub>11.5</sub> Si <sub>1.5</sub> H alloys. <b>2020</b> , 816, 152614		1
710	Mechanical Synthesis and Hydrogen Storage Characterization of MgVCr and MgVTiCrFe High-Entropy Alloy. <b>2020</b> , 22, 1901079		26
709	Mechanism of highly enhanced hydrogen storage by two-dimensional 1T' MoS. <b>2020</b> , 22, 430-436		7
708	Materials for hydrogen-based energy storage [past, recent progress and future outlook. <b>2020</b> , 827, 153548		264
707	Effect of temperature on fast forging process of Mg-Ni samples for fast formation of Mg <sub>2</sub> Ni for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 3008-3015	6.7	9
706	Improvement of dehydrogenation performance by adding CeO <sub>2</sub> to $\beta$ -AlH <sub>3</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 2119-2126	6.7	7
705	Development of a high-energy-density portable/mobile hydrogen energy storage system incorporating an electrolyzer, a metal hydride and a fuel cell. <b>2020</b> , 259, 114175		34
704	Empowering hydrogen storage performance of MgH <sub>2</sub> by nanoengineering and nanocatalysis. <b>2020</b> , 9, 100064		88
703	Proton exchange membrane fuel cells heat recovery opportunities for combined heating/cooling and power applications. <b>2020</b> , 204, 112328		67
702	Ultrasound-accelerated synthesis of uniform SrMnO nanoparticles as water-oxidizing catalysts for water splitting systems. <b>2020</b> , 62, 104899		9
701	An overview of development and challenges in hydrogen powered vehicles. <b>2020</b> , 17, 13-37		48
700	Microstructure and first hydrogenation properties of TiFe alloy with Zr and Mn as additives. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 787-797	6.7	21
699	Magnesium-Based Materials for Hydrogen Storage-A Scope Review. <b>2020</b> , 13,		21
698	Effect of Cr on the hydrogen storage and electronic properties of BCC alloys: Experimental and first-principles study. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 28996-29008	6.7	10
697	The recent development on MgH <sub>2</sub> system by 16wt% nickel addition and particle size reduction through ball milling: A noticeable hydrogen capacity up to 5wt% at low temperature and pressure. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 29046-29058	6.7	10
696	Thermodynamic properties of Mg-Pd liquid alloys. <b>2020</b> , 317, 114024		2

695	Eco-Friendly Synthesis of Carboxymethyl Cellulose-Stabilized Ru <sub>0.57</sub> Co <sub>0.43</sub> Nanoclusters as Extremely Efficient and Durable Catalysts for Hydrolytic Dehydrogenation of Methylamine Borane. <b>2020</b> , 8, 16197-16204		5
694	Selection of metal hydrides for a thermal energy storage device to support low-temperature concentrating solar power plants. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 28404-28425	6.7	7
693	Metal (boro-) hydrides for high energy density storage and relevant emerging technologies. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 33687-33730	6.7	28
692	Operational principles and effect of operating parameters on performance of metal hydride heat pumps. <b>2020</b> , 120, 22-30		2
691	Surface-governed electrochemical hydrogenation in FeNi-based metallic glass. <b>2020</b> , 475, 228700		4
690	Functionalized tetrahedral silsesquioxane cages for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 32157-32167	6.7	3
689	Molecular dynamics study on magnesium hydride nanoclusters with machine-learning interatomic potential. <b>2020</b> , 102,		2
688	Study on the hydrogen storage performance of graphene(N)Bc-graphene(N) structure. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 33789-33797	6.7	2
687	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> , <b>2020</b> , 45, 32196-32205	6.7	0
686	Efficient electrochemical hydrogen evolution reaction and solar activity via bi-functional GO/Co <sub>3</sub> O <sub>4</sub> /TiO <sub>2</sub> nano hybrid structure. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 17410-17421	6.7	19
685	Exploration of the Dehydrogenation Pathways of Ammonia Diborane and Diammoniate of Diborane by Molecular Dynamics Simulations Using Reactive Force Fields. <b>2020</b> , 124, 1698-1704		14
684	Formation and hydrogen storage behavior of nanostructured Mg <sub>2</sub> FeH <sub>6</sub> in a compressed 2MgH <sub>2</sub> Be composite. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 21676-21686	6.7	3
683	Reinforced combustion of the ZrH <sub>2</sub> -HMX-CMDB propellant: The critical role of hydrogen. <b>2020</b> , 402, 126275		6
682	Structural design and performance research of methanol steam reforming microchannel for hydrogen production based on mixing effect. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 20859-20874	6.7	11
681	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> , <b>2020</b> ,	6.7	0
680	Iron based catalyst for the improvement of the sorption properties of KSiH <sub>3</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 33681-33686	6.7	4
679	Potential Liquid-Organic Hydrogen Carrier (LOHC) Systems: A Review on Recent Progress. <b>2020</b> , 13, 6040		40
678	Rare Earth Elements A Treasure Locked in AMD?. <b>2020</b> , 263-313		

677	New insights into the anti-disproportionation mechanism of ZrCo alloying with Ti, Hf, Sc, Cu, and Fe elements. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 28985-28995	6.7	1
676	Structural evolution, mechanical, electronic and vibrational properties of high capacity hydrogen storage TiH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 30783-30791	6.7	4
675	Li-Ion Diffusion in Nanoconfined LiBH-LiI/AlO: From 2D Bulk Transport to 3D Long-Range Interfacial Dynamics. <b>2020</b> , 12, 38570-38583		14
674	Oxidation induced cubic-tetragonal phase transformation in titanium hydride powders. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 25043-25053	6.7	2
673	An Energy Consumption Model for Designing an AGV Energy Storage System with a PEMFC Stack. <b>2020</b> , 13, 3435		10
672	Differences in the heterogeneous nature of hydriding/dehydriding kinetics of MgH <sub>2</sub> /TiH nanocomposites. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 27421-27433	6.7	17
671	Quantitative Analysis of Hydrogen in High-Hydrogen-Content Material of Magnesium Hydride via Laser-Induced Breakdown Spectroscopy. <b>2020</b> , 92, 11171-11176		4
670	Design tool for estimating metal hydride storage system characteristics for light-duty hydrogen fuel cell vehicles. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 24917-24927	6.7	9
669	Nanomaterials in the advancement of hydrogen energy storage. <b>2020</b> , 6, e04487		20
668	Development of hydrogen storage reactor using composite of metal hydride materials with ENG. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 27434-27442	6.7	7
667	Kinetics and thermodynamics of near eutectic Mg-Mg <sub>2</sub> Ni composites produced by casting process. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 29009-29022	6.7	13
666	Hydrogen adsorption properties of in-situ synthesized Pt-decorated porous carbons templated from zeolite EMC-2. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 25086-25095	6.7	4
665	Laser ablation of aluminized RDX with added ammonium perchlorate or ammonium perchlorate/boron/magnesium hydride. <b>2020</b> , 221, 194-200		7
664	Systems for accumulation, storage and release of hydrogen. <b>2020</b> , 89, 897-916		12
663	Structural and Hydrogen Storage Properties of Mg <sub>60</sub> -Ni <sub>40</sub> and Mg <sub>80</sub> -Ni <sub>20</sub> Alloys Prepared by Planar Flow Casting. <b>2020</b> , 29, 6101-6107		1
662	Surfactant-aided synthesis of RhCo nanoclusters as highly effective and recyclable catalysts for the hydrolysis of methylamine borane and dimethylamine borane. <b>2020</b> , 10, 7865-7874		8
661	[Ag <sub>15</sub> H <sub>13</sub> (DPPH) <sub>5</sub> ] <sup>2+</sup> and [Ag <sub>27</sub> H <sub>22</sub> (DPPB) <sub>7</sub> ] <sup>3+</sup> : Two New Hydride and Phosphine Co-Protected Clusters and Their Fragmentation Leading to Naked Clusters, Ag <sub>13</sub> <sup>+</sup> and Ag <sub>25</sub> <sup>+</sup> . <b>2020</b> , 124, 20569-20577		7
660	Effect of carbon nanoscaffolds on hydrogen storage performance of magnesium hydride. <b>2020</b> , 37, 1306-1316		7

659	Hydrogen Direct Adsorptive Separation: Development Status and Trends. <b>2020</b> , 34, 15126-15140		2
658	A computational workflow to discover novel liquid organic hydrogen carriers and their dehydrogenation routes. <b>2020</b> , 5, 1658-1670		3
657	SEMICONDUCTOR MATERIALS Ce-SnO <sub>2</sub> /Sb <sub>2</sub> O <sub>5</sub> AND Pd-SnO <sub>2</sub> /Sb <sub>2</sub> O <sub>5</sub> FOR CREATING SENSITIVE ELEMENTS OF SENSORS FOR HYDROGEN. <b>2020</b> , 56, 117-123		3
656	Thermal Reduction of CO <sub>2</sub> with Activated Alkali Metal Aluminum Hydrides for Selective Methanation. <b>2020</b> , 34, 11210-11218		2
655	Ultrathin Magnesium Nanosheet for Improved Hydrogen Storage with Fishbone Shaped One-Dimensional Carbon Matrix. <b>2020</b> , 3, 8143-8149		6
654	. <b>2020</b> ,		3
653	Improving hydrogen storage performance of Mg-based alloy through microstructure optimization. <b>2020</b> , 480, 228823		6
652	Magnesium Hydride-Mediated Sustainable Hydrogen Supply Prolongs the Vase Life of Cut Carnation Flowers via Hydrogen Sulfide. <b>2020</b> , 11, 595376		10
651	Polymer composite material based on titanium hydride. <b>2020</b> , 945, 012079		
650	System Design and Modeling of a High Temperature PEM Fuel Cell Operated with Ammonia as a Fuel. <b>2020</b> , 13, 4689		3
649	Water Removal from LOHC Systems. <b>2020</b> , 1, 1-10		0
648	New Aspects of MgH Morphological and Structural Changes during High-Energy Ball Milling. <b>2020</b> , 13,		5
647	Preferential alkaline leaching of amphoteric elements from super-stoichiometric hydrogen storage alloy. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 13387-13397	6.7	1
646	Mechanical and electronic properties of van der Waals layered hcp PdH. <b>2020</b> , 10, 8037		1
645	A Comprehensive Review on Hydrogen Absorption Behaviour of Metal Alloys Prepared through Mechanical Alloying. <b>2020</b> , 10, 562		13
644	Mg-containing multi-principal element alloys for hydrogen storage: A study of the MgTiNbCr <sub>0.5</sub> Mn <sub>0.5</sub> Ni <sub>0.5</sub> and Mg <sub>0.68</sub> TiNbNi <sub>0.55</sub> compositions. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 19539-19552	6.7	16
643	Synthesis of Nanostructured TiFe Hydrogen Storage Material by Mechanical Alloying via High-Pressure Torsion. <b>2020</b> , 22, 2000011		6
642	The roles of native defects and transition metal additives in the dehydrogenation mechanism of Mg(AlH <sub>4</sub> ) <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 17625-17636	6.7	1

641	Effect of Na and Cooling Rate on the Activation of Mg-Ni Alloys for Hydrogen Storage. <b>2020</b> , 20, 5192-5200		3
640	A remarkable increase in the adsorbed H <sub>2</sub> amount: Influence of pore size distribution on the H <sub>2</sub> adsorption capacity of Fe-BTC. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 12394-12407	6.7	3
639	Secondary Alcohols as Rechargeable Electrofuels: Electrooxidation of Isopropyl Alcohol at Pt Electrodes. <b>2020</b> , 10, 6831-6842		13
638	Solid-state hydrogen storage nanomaterials for fuel cell applications. <b>2020</b> , 229-261		1
637	Interconversion of Formate/Bicarbonate for Hydrogen Storage/Release: Improved Activity Following Sacrificial Surface Modification of a [email[protected]]/TiO <sub>2</sub> Catalyst with a TiO <sub>x</sub> Shell. <b>2020</b> , 3, 5819-5829		13
636	High-pressure cell for in situ neutron studies of hydrogen storage materials. <b>2020</b> , 21, 125-135		0
635	Influence of KNbF Catalyst on the Desorption Behavior of LiAlH <sub>4</sub> . <b>2020</b> , 8, 457		11
634	Improved hydrogen storage kinetics of Mg-based alloys by substituting La with Sm. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 21588-21599	6.7	10
633	Insight DFT studies about the optoelectronic properties of Fe and Ga doped Mg-based hydrides: Efficient materials for optical devices. <b>2020</b> , 24, e00483		1
632	A review on recent advances in hollow spheres for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 17583-17604	6.7	24
631	Nickel-Metal Hydride (Ni-MH) Batteries. <b>2020</b> , 131-175		1
630	Molecular Insights into the Ligand-Based Six-Proton- and Six-Electron-Transfer Processes Between Tris-ortho-Phenylenediamines and Tris-ortho-Benzoquinodiiimines. <b>2020</b> , 26, 9609-9619		1
629	High capacity, low pressure hydrogen storage based on magnesium hydride and thermochemical heat storage: Experimental proof of concept. <b>2020</b> , 271, 115226		12
628	Catalytic dehydrogenation of liquid organic hydrogen carrier dodecahydro-N-ethylcarbazole over palladium catalysts supported on different supports. <b>2020</b> , 27, 36172-36185		14
627	Investigation on Adsorption and Decomposition Properties of CL-20/FOX-7 Molecules on MgH(110) Surface by First-Principles. <b>2020</b> , 25,		2
626	Nickel phosphide catalysts for hydrogen generation through water reduction, ammonia-borane and borohydride hydrolysis. <b>2020</b> , 20, 100693		4
625	Comparison of different system layouts to generate a substitute of natural gas from biomass and electrolytic hydrogen. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 26166-26178	6.7	6
624	From coal ashes to solid sorbents for hydrogen storage. <b>2020</b> , 270, 122355		8



623	Hydrogen: An Energy Carrier. <b>2020</b> , 475-493		5
622	Pulling Simulations and Hydrogen Sorption Modelling on Carbon Nanotube Bundles. <b>2020</b> , 6, 11		3
621	Hydrogen production from sodium borohydride by ZnCl <sub>2</sub> treated defatted spent coffee ground catalyst. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 9733-9743	6.7	11
620	Ionic Liquid-Based Deep Eutectic Solvent as Reaction Media for the Thermal Dehydrogenation of Ethylene Diamine-bis-borane. <b>2020</b> , 8, 4910-4919		12
619	Hydrogen Adsorption and Dissociation on Al <sub>n</sub> Rh <sub>2</sub> <sup>+</sup> (n = 1 to 9) Clusters: Steric and Coordination Effects. <b>2020</b> , 124, 7624-7633		4
618	A theoretical first principles computational investigation into the potential of aluminum-doped boron nitride nanotubes for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 11176-11189 <sup>1</sup>	6.7	11
617	Electrochemical properties of the CaNi <sub>5</sub> /Mnx electrodes synthesized by mechanical alloying. <b>2020</b> , 44, 10112-10125		2
616	Towards Non-Mechanical Hybrid Hydrogen Compression for Decentralized Hydrogen Facilities. <b>2020</b> , 13, 3145		21
615	Reversible Hydrogen Storage Using Nanocomposites. <b>2020</b> , 10, 4618		7
614	Hydride-encapsulated bimetallic clusters supported by 1,1-dithiolates. <b>2020</b> , 56, 9300-9303		8
613	Ammonia Decomposition Enhancement by Cs-Promoted Fe/Al <sub>2</sub> O <sub>3</sub> Catalysts. <b>2020</b> , 150, 3369-3376		5
612	A Density Functional Theory Study of the Hydrogen Absorption in High Entropy Alloy TiZrHfMoNb. <b>2020</b> , 59, 9774-9782		16
611	Hydrogenation of acetylene and propyne over hydrogen storage ErNi <sub>5</sub> -Al alloys and the role of absorbed hydrogen. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 19226-19236	6.7	3
610	Fabrication of yttrium hydride for high-temperature moderator application. <b>2020</b> , 539, 152335		16
609	Conversion of magnesium waste into a complex magnesium hydride system: Mg(NH <sub>2</sub> ) <sub>2</sub> LiH. <b>2020</b> , 4, 1915-1923		12
608	Origin of the structural diversity of the alkaline metal borohydride MBH <sub>4</sub> (M = Li, Na, K, Rb and Cs): Insights from first-principles calculations. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 9946-9958	6.7	1
607	Beyond Idealized Models of Nanoscale Metal Hydrides for Hydrogen Storage. <b>2020</b> , 59, 5786-5796		6
606	Modeling and numerical simulation of a 5 kg LaNi <sub>5</sub> -based hydrogen storage reactor with internal conical fins. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 8794-8809	6.7	30

605	Improving desorption temperature and kinetic properties in MgH <sub>2</sub> by vacancy defects: DFT study. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 10806-10813	6.7	10
604	Flexible, Water-Resistant and Air-Stable LiBH Nanoparticles Loaded Melamine Foam With Improved Dehydrogenation. <b>2020</b> , 8, 45		3
603	Sodium anilide-cyclohexylamide pair: synthesis, characterization, and hydrogen storage properties. <b>2020</b> , 56, 1944-1947		4
602	Combined Effects of Anion Substitution and Nanoconfinement on the Ionic Conductivity of Li-Based Complex Hydrides. <b>2020</b> , 124, 2806-2816		20
601	Effect of TiO <sub>2</sub> + Nb <sub>2</sub> O <sub>5</sub> + TiH <sub>2</sub> Catalysts on Hydrogen Storage Properties of Magnesium Hydride. <b>2020</b> , 5, 1059-1069		
600	Speed-up of Monte Carlo simulations by preparing starting off-lattice structures that are close to equilibrium. <b>2020</b> , 152, 044102		4
599	Resolving hydrogen atoms at metal-metal hydride interfaces. <b>2020</b> , 6, eaay4312		43
598	Polyol Process Coupled to Cold Plasma as a New and Efficient Nanohydride Processing Method: Nano-NiH as a Case Study. <b>2020</b> , 10,		0
597	On-board hydrogen storage in an adsorbent bed: Development of a multi-scale dynamic 1D-plus-1D model. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 25862-25874	6.7	1
596	Experimental and numerical study of the isotherms and determination of physicochemical parameters of the hydrogen absorption/desorption process by the metal hydrides. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 15281-15293	6.7	3
595	Unravelling the possibility of hydrogen storage on naphthalene dicarboxylate-based MOF linkers: a theoretical perspective. <b>2020</b> , 118, e1757169		2
594	Selection of phase change materials, metal foams and geometries for improving metal hydride performance. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 14922-14939	6.7	16
593	Thermodynamic and microstructural basis for the fast hydrogenation kinetics in MgMg <sub>2</sub> Ni-carbon hybrids. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 11632-11640	6.7	6
592	Phase evolution, thermodynamics and kinetics property of transition metal (TM = Zr, Ti, V) catalyzed Mg <sub>75</sub> Ce <sub>25</sub> Ni hydrogen storage alloys. <b>2020</b> , 144, 109516		12
591	Hydrogen storage property of as-milled La <sub>7</sub> RE <sub>3</sub> Mg <sub>80</sub> Ni <sub>10</sub> (RE = Sm, Ce) alloys. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 28163-28174	6.7	3
590	Determining the effect of added zirconium on the bond character in TiFe alloys using scanning Kelvin probe force microscopy. <b>2020</b> , 517, 146163		3
589	Computational screening for enhanced hydrogen sensing by doped-2H and pristine-1T MoS <sub>2</sub> . <b>2020</b> , 749, 137450		7
588	Phase transformation, thermodynamics and kinetics property of Mg <sub>90</sub> Ce <sub>5</sub> RE <sub>5</sub> (RE = La, Ce, Nd) hydrogen storage alloys. <b>2020</b> , 51, 84-93		26

587	Acceleration of ammonium phosphate hydrolysis using TiO <sub>2</sub> microspheres as a catalyst for hydrogen production. <b>2020</b> , 2, 2080-2086		6
586	Study of an autothermal-equilibrium metal hydride reactor by reaction heat recovery as hydrogen source for the application of fuel cell power system. <b>2020</b> , 213, 112864		11
585	Combustion behaviors and explosibility of suspended metal hydride TiH <sub>2</sub> dust. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 12216-12224	6.7	7
584	Hydrogen storage in magnesium decorated boron clusters (Mg <sub>2</sub> B <sub>n</sub> , n = 4-14): A density functional theory study. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 12961-12971	6.7	15
583	Hydrogen diffusion out of ruthenium-an ab initio study of the role of adsorbates. <b>2020</b> , 22, 7935-7941		3
582	Catalytic mechanism for selective hydrogen production based on formate decomposition with polyvinylpyrrolidone-dispersed platinum nanoparticles. <b>2020</b> , 4, 3458-3466		6
581	Enhanced corrosion resistance of plasma electrolytic oxidation coatings prepared on Mg alloy ZX using nano-Al <sub>2</sub> O <sub>3</sub> and NaF incorporated electrolyte. <b>2021</b> , 37, 246-252		8
580	Development of a gaseous and solid-state hybrid system for stationary hydrogen energy storage. <b>2021</b> , 6, 528-537		11
579	Aluminum hydride for solid-state hydrogen storage: Structure, synthesis, thermodynamics, kinetics, and regeneration. <b>2021</b> , 52, 428-440		25
578	Investigating inhomogeneity effects on the crack driving force in two-phase electrode particles using a planar composite core-shell model. <b>2021</b> , 152, 103652		
577	Cohesive modeling of crack formation in two-phase planar electrodes subject to diffusion induced stresses using the distributed dislocation method. <b>2021</b> , 194, 106183		3
576	Silicon Fuel: A hydrogen storage material. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 1627-16336.7		1
575	Improvement of reversible H storage capacity by fine tuning of the composition in the pseudo-binary systems A <sub>2</sub> -La Ni <sub>7</sub> (A = Gd, Sm, Y, Mg). <b>2021</b> , 852, 157008		6
574	Enhancing (de)hydrogenation kinetics properties of the Mg/MgH <sub>2</sub> system by adding ANi <sub>5</sub> (A = Ce, Nd, Pr, Sm, and Y) alloys via ball milling. <b>2021</b> , 39, 1010-1016		8
573	Mesoporous Sn(IV) Doping DFNS Supported BaMnO <sub>3</sub> Nanoparticles for Formylation of Amines Using Carbon Dioxide. <b>2021</b> , 151, 573-581		1
572	Metal hydride hydrogen storage and compression systems for energy storage technologies. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 13647-13657	6.7	66
571	Graphene-induced growth of N-doped niobium pentaoxide nanorods with high catalytic activity for hydrogen storage in MgH <sub>2</sub> . <b>2021</b> , 406, 126831		33
570	LaNi <sub>5.5</sub> particles for reversible hydrogen storage in N-ethylcarbazole. <b>2021</b> , 80, 105476		10

569	Syntheses of alkali-metal carbazolidides for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 11051-11058	6.7	1
568	Functionalized biochars as supports for Pd/C catalysts for efficient hydrogen production from formic acid. <b>2021</b> , 282, 119615		23
567	Preparation and application of sulfonated polysulfone in an electrochemical hydrogen storage system. <b>2021</b> , 45, 4026-4035		4
566	Electricity storage based on coupled thermochemical reactions: The Thermochemical Battery. <b>2021</b> , 33, 102104		0
565	Recent progress of high-entropy materials for energy storage and conversion. <b>2021</b> , 9, 782-823		63
564	Formate-Bicarbonate Cycle as a Vehicle for Hydrogen and Energy Storage. <b>2021</b> , 14, 1258-1283		9
563	Hydrogen storage behavior and microstructural feature of a TiFe <sub>2</sub> Cr <sub>2</sub> alloy. <b>2021</b> , 853, 157099		11
562	Multiscale analysis for power-to-gas-to-power facilities based on energy storage. <b>2021</b> , 144, 107147		5
561	Nano-reinforcement in sustainable polymer composites. <b>2021</b> , 231-243		
560	Modification of NaAlH <sub>4</sub> properties using catalysts for solid-state hydrogen storage: A review. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 766-782	6.7	22
559	Characterisation of La <sub>0.9</sub> Ce <sub>0.1</sub> Ni <sub>5</sub> alloy for the development of single-stage thermally driven sorption hydrogen compressor. <b>2021</b> , 45, 5710-5729		5
558	Efficient hydrogen storage in defective graphene and its mechanical stability: A combined density functional theory and molecular dynamics simulation study. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 5485-5494	6.7	8
557	Cross-sectional TEM investigation of Mg-LaNi <sub>5</sub> -Soot hybrids for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 5507-5519	6.7	3
556	Be, Li and Sc functionalized borane B <sub>6</sub> H <sub>6</sub> and carborane C <sub>2</sub> B <sub>4</sub> H <sub>6</sub> for hydrogen storage: A comparison using first principles approach and molecular dynamics simulations. <b>2021</b> , 45, 7605-7616		4
555	First-principles investigations of the structural, optoelectronic, magnetic and thermodynamic properties of hydride perovskites XCuH <sub>3</sub> (X = Co, Ni, Zn) for hydrogen storage applications. <b>2021</b> , 228, 166187		3
554	The potential of hydrogen hydrate as a future hydrogen storage medium. <b>2021</b> , 24, 101907		11
553	Laves phases: a review of their functional and structural applications and an improved fundamental understanding of stability and properties. <b>2021</b> , 56, 5321-5427		44
552	Hydrogen solution in tetrahedral or octahedral interstitial sites in zirconium-cobalt hydrogen storage alloy: A first-principles study. <b>2021</b> , 859, 157881		1

551	Hydrogen storage in MgAlTiFeNi high entropy alloy. <b>2021</b> , 858, 158357		19
550	Effect of ball milling and iron mixing on structural and morphological properties of magnesium for hydrogen storage application. <b>2021</b> , 42, 1673-1677		2
549	Review on effective parameters in electrochemical hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 783-795	6.7	13
548	Magnesium vacancies and hydrogen doping in MgH <sub>2</sub> for improving gravimetric capacity and desorption temperature. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 2322-2329	6.7	2
547	Cost-effective mechanochemical synthesis of highly dispersed supported transition metal catalysts for hydrogen storage. <b>2021</b> , 80, 105535		36
546	Experimental investigation on absorption and desorption characteristics of La <sub>0.9</sub> Ce <sub>0.1</sub> Ni <sub>5</sub> for hydrogen storage application. <b>2021</b> , 45, 2870-2881		0
545	Electrochemical Studies on the Ca-Based Hydrogen Storage Alloy for Different Milling Times. <b>2021</b> , 27, 1005-1024		5
544	First-Principles Calculation on Electronic Band Structure and Phonon Structure for NaBH <sub>4</sub> and NaBH <sub>6</sub> at High Pressures. <b>2021</b> , 10, 1-8		
543	Structural properties of Mg - x wt% Co (x = 0, 5, 10 & 20) nanocomposites for hydrogen storage applications. <b>2021</b> , 42, 1713-1717		0
542	Improving the dynamics of a Nd-Mg-Ni-based alloy by combining Ni element and mechanical milling.. <b>2021</b> , 11, 3603-3612		0
541	Uncovering the encapsulation effect of reduced graphene oxide sheets on the hydrogen storage properties of palladium nanocubes. <b>2021</b> , 13, 16942-16951		2
540	Challenges in the use of hydrogen for maritime applications. <b>2021</b> , 14, 815-843		37
539	Nanotechnology for hydrogen storage. <b>2021</b> , 301-331		
538	Early transition metal nano-carbides and nano-hydrides from solid-state metathesis initiated at room temperature. <b>2021</b> , 23, 6431-6448		1
537	Extracting adsorbate information from manometric uptake measurements of hydrogen at high pressure and ambient temperature. 1		0
536	Hydrogen storage in incompletely etched multilayer TiCT at room temperature. <b>2021</b> , 16, 331-336		38
535	Current Research Trends and Perspectives on Solid-State Nanomaterials in Hydrogen Storage. <b>2021</b> , 2021, 3750689		9
534	On-Board and Off-Board Technologies for Hydrogen Storage. <b>2021</b> , 139-165		

533	Ultrafine PtCo Alloy Nanoclusters Confined in N-Doped Mesoporous Carbon Spheres for Efficient Ammonia Borane Hydrolysis. <b>2021</b> , 9, 822-832		15
532	Biopolymer-based (nano)materials for hydrogen storage. <b>2021</b> , 673-701		
531	Hydrogen Storage Techniques for Stationary and Mobile Applications: A Review. <b>2021</b> , 29-40		2
530	Fast filling strategy of type III on-board hydrogen tank based on time-delayed method. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> ,	6.7	4
529	Hydrogen storage properties of Mg@Nb@C nanocomposite: Effects of Nb nanocatalyst and carbon nanoconfinement. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 9443-9451	6.7	10
528	Hydrogen fuel and fuel cell technology for cleaner future: a review. <b>2021</b> , 28, 15607-15626		21
527	Recent advances in catalyst-enhanced LiAlH <sub>4</sub> for solid-state hydrogen storage: A review. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 9123-9141	6.7	14
526	Changes in the microstructural state of Ti-Al-Nb-based alloys depending on the temperature cycle during spark plasma sintering. <b>2021</b> , 63, 119-123		3
525	Evaluation of the pressure dependence of the cycle durability and thermodynamics of a metal hydride compressor composed of ternary V40 and V70TiCr. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 9479-9487	6.7	2
524	DFT based first principles study of novel combinations of perovskite-type hydrides XGaH <sub>3</sub> (X = Rb, Cs, Fr) for hydrogen storage applications. <b>2021</b> , 11, 025032		2
523	Ti decorated B8 as a potential hydrogen storage material: A DFT study with van der Waals corrections. <b>2021</b> , 765, 138277		3
522	Nanoporous PdCuBi Amorphous Thin Films for Electrochemical Hydrogen Storage and Sensing. <b>2021</b> , 4, 2672-2680		2
521	A Review of High Density Solid Hydrogen Storage Materials by Pyrolysis for Promising Mobile Applications. <b>2021</b> , 60, 2737-2771		12
520	Significant improvement of electrochemical hydrogenation, corrosion protection and thermal stability of LaNi <sub>4</sub> CoZn <sub>0.4</sub> -Li (x = 0.2) solid solution phases due to Li-doping. <b>2021</b> , 113, 106552		1
519	Ionic liquid promoted dehydrogenation of amine boranes: A review. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 11761-11781	6.7	2
518	Recent advances in nonmetallic atom-doped metal nanocrystals: Synthesis and catalytic applications. <b>2021</b> , 32, 2679-2679		1
517	Recent advancement in consolidation of MOFs as absorbents for hydrogen storage. <b>2021</b> , 45, 12481-12499		6
516	Ion Mobility Spectrometry Characterization of the Intermediate Hydrogen-Containing Gold Cluster Au(PPh) <sub>3</sub> H. <b>2021</b> , 12, 2502-2508		4

515	Combinations of VC and TiC MXenes for Boosting the Hydrogen Storage Performances of MgH. <b>2021</b> , 13, 13235-13247		26
514	The Mg/MAX-phase composite for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 47, 7274-7274	6.7	5
513	Study on hydrogen absorption and surface properties of TiZrVNbCr high entropy alloy. <b>2021</b> , 130, 107074		4
512	Superior Hydrogen Sorption Kinetics of Ti <sub>0.20</sub> Zr <sub>0.20</sub> Hf <sub>0.20</sub> Nb <sub>0.40</sub> High-Entropy Alloy. <b>2021</b> , 11, 470		2
511	Exploring the capability of mayenite (12CaO $\cdot$ 7AlO) as hydrogen storage material. <b>2021</b> , 11, 6278		1
510	Marigold shaped mesoporous composites Bi <sub>2</sub> S <sub>3</sub> /Ni(OH) <sub>2</sub> with n-n heterojunction for high efficiency photocatalytic hydrogen production from water decomposition. <b>2021</b> , 766, 138337		10
509	Effect of Ti-based nanosized additives on the hydrogen storage properties of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2021</b> ,	6.7	7
508	Obtaining particles with the structure Mg@C and (Mg@C)@Pd, their properties and stability in the hydrogenation/dehydrogenation processes. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 47, 7299-7299	6.7	0
507	Nanocatalytic Architecture for the Selective Dehydrogenation of Formic Acid. <b>2021</b> , 279-305		0
506	Substitution of nickel in Mg <sub>2</sub> Ni and its hydride with elements from groups XIII and XIV: An ab initio study. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 15691-15701	6.7	0
505	An innovative multi-zone configuration to enhance the charging process of magnesium based metal hydride hydrogen storage tank. <b>2021</b> , 36, 102443		6
504	Design and Testing of an Universal Autonomous Surface Vehicle. <b>2021</b> ,		
503	Thermodynamic and Kinetic Considerations Regarding the Prospects for a Dual-Purpose Hydrogen Extraction and Separation Membrane. <b>2021</b> , 14, 2136		
502	Hydrogen desorption from alloys Mg <sub>1-x</sub> Tu <sub>x</sub> (B <sub>2</sub> Cl): Cu catalysis in detail. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 14494-14507	6.7	0
501	Alloy selection for multistage metal-hydride hydrogen compressors: A thermodynamic model. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 15702-15715	6.7	4
500	Room Temperature Metal Hydrides for Stationary and Heat Storage Applications: A Review. <b>2021</b> , 9,		10
499	Effect of particle size, pressure and temperature on the activation process of hydrogen absorption in TiVZrHfNb high entropy alloy. <b>2021</b> , 861, 158615		5
498	Atomistic insight into hydrogen trapping at MC/BCC-Fe phase boundaries: The role of local atomic environment. <b>2021</b> , 208, 116744		7



497	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> , <b>2021</b> , 46, 14478-14493	6.7	12
496	Nanoporous Pd <sub>1-x</sub> Co <sub>x</sub> for hydrogen-intercalation magneto-ionics. <b>2021</b> , 9, 041101		2
495	High capacity reversible hydrogen storage in zirconium doped 2D-covalent triazine frameworks: Density Functional Theory investigations. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 14520-14531	6.7	6
494	An Analysis on the Compressed Hydrogen Storage System for the Fast-Filling Process of Hydrogen Gas at the Pressure of 82 MPa. <b>2021</b> , 14, 2635		4
493	H <sub>2</sub> adsorption by noble gas insertion compounds: A computational study. <b>2021</b> , 98, 100060		1
492	A review on recent advances in hydrogen energy, fuel cell, biofuel and fuel refining via ultrasound process intensification. <b>2021</b> , 73, 105536		19
491	Review of the Decomposition of Ammonia to Generate Hydrogen.		16
490	Selective hydrogenation of furfural to furfuryl alcohol over Pd/TiH <sub>2</sub> catalyst. <b>2021</b> , 508, 111599		3
489	Characterization of Activated Carbons Prepared from Almond Shells and Their Hydrogen Storage Properties. <b>2021</b> , 35, 10227-10240		4
488	Nano-synergy enables highly reversible storage of 9.2wt% hydrogen at mild conditions with lithium borohydride. <b>2021</b> , 83, 105839		14
487	H <sub>2</sub> O decomposition on Ir (1 1 1) surface with high-reactivity at room temperature: A first-principles study. <b>2021</b> , 1199, 113196		
486	Kinetic and Fourier Transform Infrared Studies on the Thermal Decomposition of Sodium Hydride. <b>2021</b> , 125, 11813-11819		
485	Nonlinear dynamic characteristics and bifurcation analysis of Ti <sub>2</sub> ZrNi quasicrystal as hydrogen storage material. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 16667-16675	6.7	1
484	Structural and hydrogen absorption/desorption properties of Zr <sub>2</sub> (Co <sub>0.5</sub> Fe <sub>0.2</sub> Ni <sub>0.2</sub> V <sub>0.1</sub> ) intermetallic alloy. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 19060-19073	6.7	0
483	A review on the development of the electrochemical hydrogen compressors. <b>2021</b> , 494, 229743		7
482	Catalytic effect comparison of TiO <sub>2</sub> and La <sub>2</sub> O <sub>3</sub> on hydrogen storage thermodynamics and kinetics of the as-milled La-Sm-Mg-Ni-based alloy. <b>2021</b> , 9, 2063-2063		0
481	Advanced hydrogen storage of the Mg <sub>1-x</sub> Al <sub>x</sub> system: A review. <b>2021</b> , 9, 1111-1111		11
480	Hydrogen Gas Sensors Using Palladium Nanogaps on an Elastomeric Substrate. <b>2021</b> , 33, e2005929		13

479	Recent Development of Lithium Borohydride-Based Materials for Hydrogen Storage. <b>2021</b> , 2, 2100073		10
478	Mechanism of Deoxygenation and Cracking of Fatty Acids by Gas-Phase Cationic Complexes of Ni, Pd, and Pt. <b>2021</b> , 2, 102-114		
477	Strategy of thermodynamic and kinetic improvements for Mg hydride nanostructured by immiscible transition metals. <b>2021</b> , 494, 229742		8
476	Translational Inelasticity of Hydrogen Atoms Scattering off Hydrogen-Covered W(110) Surfaces. <b>2021</b> , 125, 14075-14081		1
475	Design of TiVNb-(Cr, Ni or Co) multicomponent alloys with the same valence electron concentration for hydrogen storage. <b>2021</b> , 865, 158767		13
474	NHF-Induced Morphology Control of CoP Nanostructures to Enhance the Hydrogen Evolution Reaction. <b>2021</b> , 60, 10781-10790		4
473	High-loading, ultrafine Ni nanoparticles dispersed on porous hollow carbon nanospheres for fast (de)hydrogenation kinetics of MgH <sub>2</sub> . <b>2021</b> ,		6
472	Factors Affecting Hydrogen Adsorption in Metal-Organic Frameworks: A Short Review. <b>2021</b> , 11,		7
471	Theoretical insight on the structural and electronic properties of (PdH) <sub>N</sub> (N = 10B5) clusters. <b>2021</b> , 140, 1		
470	Enhanced hydrogen storage of a functional material: Hf <sub>2</sub> CF <sub>2</sub> MXene with Li decoration. <b>2021</b> , 551, 149484		2
469	Enhancement of hydrogen storage properties of Li <sub>12+x</sub> Mg <sub>3-x</sub> Si <sub>4-y</sub> Sn <sub>y</sub> (x=y=0.48) phase by modification with Li <sub>x</sub> ZnO/La <sub>2</sub> O <sub>3</sub> -CNT composites. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 22864-22876	6.7	2
468	A first-principles study of hydrogen storage of high entropy alloy TiZrVMoNb. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 21050-21058	6.7	6
467	Numerical investigation of expandable graphite suppression on metal-based fire. 1		3
466	Hexagonal boron nitride (h-BN) nanosheet as a potential hydrogen adsorption material: A density functional theory (DFT) study. <b>2021</b> , 24, 101043		11
465	Enhancing energy storage efficiency of lithiated carbon nitride (C <sub>7</sub> N <sub>6</sub> ) monolayers under co-adsorption of H <sub>2</sub> and CH <sub>4</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 19988-19997	6.7	3
464	Computational exploration of magnesium-decorated carbon nitride (g-C <sub>3</sub> N <sub>4</sub> ) monolayer as advanced energy storage materials. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 21739-21747	6.7	11
463	Catalytic effects of TiO <sub>2</sub> on hydrogen storage thermodynamics and kinetics of the as-milled Mg-based alloy. <b>2021</b> , 176, 111118		5
462	New insights into hydrogen uptake on porous carbon materials via explainable machine learning. <b>2021</b> , 179, 190-201		15

461	Thermoelectric properties of tetragonal HfH <sub>2</sub> under doping effect: First principles study. <b>2021</b> , 613, 413001		
460	AlH <sub>3</sub> as a hydrogen storage material: recent advances, prospects and challenges. <b>2021</b> , 40, 3337-3356		13
459	Optimization for hydrogen production from methanol partial oxidation over NiCu/Al <sub>2</sub> O <sub>3</sub> catalyst under sprays. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> ,	6.7	1
458	Mechanochemical synthesis and dehydrogenation properties of Yb(AlH <sub>4</sub> ) <sub>3</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 26437-26444	6.7	1
457	Unveiling structural, electronic properties and chemical bonding of (VH) (n=10-30) nanoclusters: DFT investigation. <b>2021</b> , 106, 107907		0
456	Effect of Sm content on activation capability and hydrogen storage performances of TiFe alloy. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 24517-24530	6.7	2
455	Nickel-cadmium batteries with pocket electrodes as hydrogen energy storage units of high-capacity. <b>2021</b> , 39, 102597		6
454	Mechanistic Study of Hydrogen Production Based on the Formate Decomposition with Platinum Nanoparticles Dispersed by Polyvinylpyrrolidone. <b>2021</b> , 64, 203-210		0
453	Hydrogen storage properties of Mg-Li-Al composite system doped with Al <sub>2</sub> TiO <sub>5</sub> catalyst for solid-state hydrogen storage. <b>2021</b> , 870, 159469		6
452	Study of the Hydrogen Storage Properties and Catalytic Mechanism of a MgH-NaAlH System Incorporating FeCl. <b>2021</b> , 6, 18948-18956		1
451	Enhanced the hydrogen storage properties and reaction mechanisms of 4MgH <sub>2</sub> ·LiAlH <sub>4</sub> composite system by addition with TiO <sub>2</sub> . <b>2021</b> , 45, 21365		2
450	Investigation of boiling heat transfer for improved performance of metal hydride thermal energy storage. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 28200-28213	6.7	3
449	Developing Ideal Metalorganic Hydrides for Hydrogen Storage: From Theoretical Prediction to Rational Fabrication. <b>2021</b> , 3, 1417-1425		4
448	Effect of ZrC Nanopowders on Enhancing the Hydro/Dehydrogenation Kinetics of MgH Powders. <b>2021</b> , 26,		1
447	Trimesic acid-Ni based metal organic framework derivative as an effective destabilizer to improve hydrogen storage properties of MgH <sub>2</sub> . <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 28134-28143	6.7	2
446	EBSD microstructural analysis of AB-type TiFe hydrogen storage alloys. <b>2021</b> , 178, 111276		0
445	Improvement of substituting La with Ce on hydrogen storage thermodynamics and kinetics of Mg-based alloys. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 28719-28733	6.7	5
444	Catalytic Hydrogen Combustion for Domestic and Safety Applications: A Critical Review of Catalyst Materials and Technologies. <b>2021</b> , 14, 4897		4

443	The effect of Na addition on the first hydrogen absorption kinetics of cast hypoeutectic Mg <sub>11</sub> Al alloys. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 27096-27106	6.7	3
442	Hydrogen storage on Li-decorated B <sub>4</sub> N: a first-principle calculation insight. <b>2021</b> , 54, 445501		4
441	Improving Reproducibility in Hydrogen Storage Material Research. <b>2021</b> , 22, 2141-2157		2
440	Hydrogen and ethanol: Production, storage, and transportation. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 27330-27348	6.7	30
439	Demonstration of a single-stage metal hydride hydrogen compressor composed of BCC V40TiCr alloy. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 28180-28190	6.7	1
438	Structural, morphological, and electrochemical properties of AB <sub>5</sub> hydrogen storage alloy by mechanical alloying. e13739		1
437	Solid gas and electrochemical hydrogenation of the selected alloys (R <sub>1</sub> R <sub>2</sub> Mg <sub>4</sub> Ni <sub>4</sub> -Co (R <sub>1</sub> =RE=Pr, Nd; x=0.8; y=0.2). <b>2021</b> , 876, 160155		3
436	Hydrogen Economy and Role of Hythane as a Bridging Solution: A Perspective Review.		7
435	Nanostructural Perspective for Destabilization of Mg Hydride Using the Immiscible Transition Metal Mn. <b>2021</b> , 60, 15024-15030		3
434	Li-decorated B <sub>2</sub> O as potential candidates for hydrogen storage: A DFT simulations study. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 33486-33495	6.7	4
433	Intermetallic Compounds Synthesized by Mechanical Alloying for Solid-State Hydrogen Storage: A Review. <b>2021</b> , 14, 5758		5
432	Dehydrogenation and Hydrogenation Cycle of Methylcyclohexane/toluene System for Liquid Phase Hydrogen Storage: Thermodynamic Reaction Equilibrium Investigation. 1		
431	Characterizations of Hydrogen Absorption and Surface Properties of Ti <sub>0.2</sub> Zr <sub>0.2</sub> Nb <sub>0.2</sub> V <sub>0.2</sub> Cr <sub>0.17</sub> Fe <sub>0.03</sub> High Entropy Alloy with Dual Phases. 1		0
430	Comprehensive in silico study on lithiated Triazine isomers and its H <sub>2</sub> storage efficiency. <b>2021</b> , 98, 100134		1
429	Distribution behaviour of boron between ZrTiHfCuNi high entropy alloy and silicon. <b>2021</b> , 271, 118863		4
428	Hydrogen generation kinetics via hydrolysis of Mg <sub>2</sub> Ni and Mg <sub>2</sub> NiH <sub>4</sub> powders. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 36323-36323	6.7	0
427	High Catalytic Activities of RENi <sub>5</sub> Al <sub>x</sub> (RE = La, Er) and Low Activity of Mg <sub>2</sub> Ni Following Hydrogen Uptake: The Role of Absorbed Hydrogen. <b>2021</b> , 125, 20919-20929		0
426	The Catalytic Role of D-block Elements and Their Compounds for Improving Sorption Kinetics of Hydride Materials: A Review. <b>2021</b> , 2, 333-364		0

425	Effect of precursor on the hydrogen evolution activity and recyclability of Pd-Supported graphitic carbon nitride. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 36210-36210	6.7	3
424	Techno-enviro-economic analyses of hydrogen supply chains with an ASEAN case study. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 32914-32928	6.7	0
423	Liquid Hydrogen: A Review on Liquefaction, Storage, Transportation, and Safety. <b>2021</b> , 14, 5917		17
422	Mesoporous carbon spheres produced by hydrothermal carbonization from rice husk: Optimization, characterization and hydrogen storage. <b>2021</b> ,		1
421	Development of CaMgH <sub>2</sub> ZrCl <sub>4</sub> composite for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 34362-34368	6.7	0
420	Computational evaluation of Mg-decorated g-CN as clean energy gas storage media. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 35130-35136	6.7	3
419	Hydrogen storage technologies for stationary and mobile applications: Review, analysis and perspectives. <b>2021</b> , 149, 111311		50
418	Advanced preparation and processing techniques for high energy fuel AlH <sub>3</sub> . <b>2021</b> , 421, 129753		6
417	Tailoring the activation behaviour and oxide resistant properties of TiFe alloys by doping with Mn. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 34830-34838	6.7	0
416	Energy storage onboard zero-emission two-wheelers: Challenges and technical solutions. <b>2021</b> , 47, 101435		7
415	Hydrogen molecule capacity physisorption on BC <sub>3</sub> monolayer: First-principles calculations. <b>2021</b> , 119, 108583		4
414	Porosity and thickness effect of PdCuBi metallic glasses on electrocatalytic hydrogen production and storage. <b>2021</b> , 210, 110099		0
413	Effect of Fe and Al on hydrogen storage properties of 75 V-Ti-Cr alloys. <b>2021</b> , 887, 161181		2
412	A comparison study of hydrogen storage performances of as-cast La <sub>10</sub> -RE Mg <sub>80</sub> Ni <sub>10</sub> (x=1 or 3; RE = Sm or Ce) alloys. <b>2021</b> , 884, 160905		4
411	Binary and Ternary Vanadium Oxides: General Overview, Physical Properties, and Photochemical Processes for Environmental Applications. <b>2021</b> , 9, 214		8
410	Cationic poly-L-amino acid-enhanced selective hydrogen production based on formate decomposition with platinum nanoparticles dispersed by polyvinylpyrrolidone. <b>2021</b> , 45, 9324-9333		0
409	Catalytic effect of TiO <sub>2</sub> on hydrogen storage properties of MgH <sub>2</sub> . <b>2021</b> , 46, 2326-2329		2
408	Carbon-based nanomaterials for hydrogen production and storage applications. <b>2021</b> , 117-131		0

407	Electronic transitions of SWCNTs in comparison to GO on Mn <sub>3</sub> O <sub>4</sub> /TiO <sub>2</sub> nanocomposites for hydrogen energy generation and solar photocatalysis. <b>2021</b> , 45, 2431-2442		2
406	Chemomechanical effect of reduced graphene oxide encapsulation on hydrogen storage performance of Pd nanoparticles. <b>2021</b> , 9, 11641-11650		1
405	Materials for Hydrogen Mobile Storage Applications. 632, 052087		1
404	Synergetic effect of C and Ni on hydrogen release from MgNi-electrochemically synthesized reduced graphene oxide based hydride. <b>2021</b> , 5, 4414-4424		2
403	Review and outlook on high-entropy alloys for hydrogen storage.		10
402	Substitutional effects in TiFe for hydrogen storage: a comprehensive review. <b>2021</b> , 2, 2524-2560		25
401	Enhancing the Regeneration Process of Consumed NaBH <sub>4</sub> for Hydrogen Storage. <b>2017</b> , 7, 1700299		223
400	Integration of Hydrogen Energy Technologies in Autonomous Power Systems. <b>2008</b> , 23-81		4
399	Metal Hydrides for Energy Storage. <b>2018</b> , 1-36		2
398	Development of Experimental Setup for Measurement of Stored Hydrogen in Solids by Volumetric Method. <b>2018</b> , 569-577		2
397	Materials for Adsorbent Applications. <b>2011</b> , 141-155		2
396	Hydrogen Storage Technologies. <b>2017</b> , 117-142		3
395	Endohedral Fullerene Complexes and In-Out Isomerism in Perhydrogenated Fullerenes. <b>2011</b> , 117-151		5
394	Introduction to hydrogen storage. <b>2016</b> , 3-25		8
393	Towards understanding the strong trapping effects of noble gas elements on hydrogen in tungsten. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 6902-6917	6.7	25
392	Energy and exergy analyses of a solar based hydrogen production and compression system. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 21414-21428	6.7	25
391	Cost assessment and evaluation of various hydrogen delivery scenarios. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 10420-10430	6.7	72
390	Dynamic study of a new design of a tanks based on metallic hydrides. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 1566-1576	6.7	12

389	Mechanism of thermal runaway as a cause of Fleischmann-Pons effect. <b>2020</b> , 870, 114237	7
388	Catalytic effect of Ni@rGO on the hydrogen storage properties of MgH <sub>2</sub> . <b>2020</b> , 8, 461-471	46
387	Recent advances in nanomaterial-based solid-state hydrogen storage. <b>2020</b> , 6, 100022	58
386	Hydrogen storage performances of the as-milled REMg <sub>11</sub> Ni (RE = Sm, Y) alloys catalyzed by CeO <sub>2</sub> . <b>2018</b> , 28, 259-265	4
385	Thermal stability of titanium hydride modified by the electrochemical deposition of titanium metal. <b>2020</b> , 7, 106519	7
384	Air-heated solid-gas reaction setup for in situ neutron powder diffraction. <b>2019</b> , 52, 761-768	5
383	Energy of hydrogen dissolution in FCC hydrides of disordered TiVCo alloys according to density functional theory data. <b>2017</b> , 59, 1895-1899	5
382	- Physical and Chemical Interactions of Hydrogen with Carbonaceous Nanostructures (An Analytical Study-Indirect Experiment). <b>2012</b> , 55-146	3
381	Introduction. <b>2014</b> , 1-16	2
380	ELECTROPHORETIC DEPOSITION OF BiVO <sub>4</sub> LAYERS ON FTO SUBSTRATES FOR PHOTO-ELECTRO-CHEMICAL CELLS. <b>2019</b> , 124-130	1
379	Optically addressing interaction of Mg/MgO plasmonic systems with hydrogen. <b>2019</b> , 27, A197-A205	8
378	Studies of the Electronic, Optical, and Thermodynamic Properties for Metal-Doped LiH Crystals by First Principle Calculations. <b>2020</b> , 75, 575-586	2
377	Quaternary Quasicrystal Alloys for Hydrogen Storage Technology. <b>2020</b> , 5, 1071-1083	1
376	Severe Plastic Deformation and Additive Distribution in Mg-Fe to Improve Hydrogen Storage Properties. <b>2017</b> , 20, 61-70	6
375	Microstructure and Electrochemical Hydrogen Storage Characteristics of CeMg <sub>12</sub> +100wt%Ni+Ywt%TiF <sub>3</sub> (Y=0, 3, 5) Alloys Prepared by Ball Milling. <b>2013</b> , 28, 217-223	3
374	Development of a Cost-Effective 20K Hydrogen BET Measurement for Nanoporous Materials. <b>2017</b> , 27, 466-470	2
373	Liquid fuel cells. <b>2014</b> , 5, 1399-418	112
372	Surface protection of Mg alloys in automotive applications: A review. <b>2019</b> , 6, 567-600	18



371	High Capacity Hydrogen Storage in Ni Decorated Carbon Nanocone: A First-Principles Study. <b>2015</b> , 05, 134-149		1
370	Recent Advances on Preparation Method of Ti-Based Hydrogen Storage Alloy. <b>2020</b> , 08, 18-38		1
369	Heat Transfer Characteristics and Hydrogen Storage Kinetics of Metal Hydride-Expanded Graphite Composite. <b>2020</b> , 31, 564-570		2
368	First-principles calculation for mechanical properties of metal dihydrides. <b>2012</b> , 61, 108801		7
367	Hydrogen Absorption/Desorption Behavior of a Cold-Rolled TiFe Intermetallic Compound. <b>2021</b> , 24,		2
366	Future Perspective on Hydrogen and Fuel Cells. <b>2021</b> ,		
365	Synthesis and Characterization of Metal Hydrides and Their Application. <b>2021</b> , 785-830		
364	Reversible chemical hydrogen storage in borohydrides via thermolysis and hydrolysis: Recent advances, challenges, and perspectives. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> ,	6.7	1
363	Excellent catalytic effect of LaNi <sub>5</sub> on hydrogen storage properties for aluminium hydride at mild temperature. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 38733-38740	6.7	4
362	Explosion characteristics and suppression of hybrid Mg/H <sub>2</sub> mixtures. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 38934-38943	6.7	5
361	Neutron vibrational spectroscopic evidence for short H <sub>2</sub> contacts in the RNiInH <sub>1.4</sub> ; 1.6 (R = Ce, La) metal hydride. <b>2022</b> , 894, 162381		3
360	Prospects of hybrid materials composed of MOFs and hydride-forming metal nanoparticles for light-duty vehicle hydrogen storage. <b>2021</b> , 25, 101208		2
359	Hydrogen Storage in Metal Hydrides. <b>2008</b> , 381-407		
358	Gaseous and Electrochemical Hydrogen Storage Properties of Nanocrystalline Mg <sub>2</sub> Ni-Type Alloys Prepared by Melt Spinning. <b>2011</b> , 02, 141-150		
357	Human-Centered Metal Hydride Actuator Systems for Rehabilitation and Assistive Technology. <b>2011</b> , 154-170		
356	Adjoint grid parabolic quazilinear boundary-value problems. <b>2012</b> , 4, 275-291		
355	Effects of Substitution of Al and Bi for Ni on Structure and Hydrogen Storage Properties of LaNi <sub>4.7-x</sub> Al <sub>0.3</sub> Bi <sub>x</sub> (x=0.1, 0.2, 0.3) Alloy. <b>2012</b> , 51, 09MB01		1
354	Mathematical model of hydride phase change in a symmetrical powder particle. <b>2012</b> , 4, 569-584		2

- 353 Hydrogen and Calorimetry: Case Studies. **2013**, 409-428
- 352 Hydrogen Storage Performances of Mg<sub>20</sub>Ni<sub>10</sub>-XMX (M=Cu, Co, Mn; X=O<sub>2</sub>) Alloys Prepared by Melt Spinning. **2013**, 85-93
- 351 Electrochemical Hydrogen Storage Kinetics of the AS-Melt La<sub>0.75-x</sub>M<sub>x</sub>Mg<sub>0.25</sub>Ni<sub>3.2</sub>Co<sub>0.2</sub>Al<sub>0.1</sub> (M=Zr, Pr; x=0.2) Alloys Applied to Ni-MH Battery. **2013**, 1829-1836
- 350 Fe-Ti Alloy Production from Mixed Ilmenite and Titanium Dioxide by Direct Electrolytic Reduction in Molten Calcium Chloride Electrolyte. **2013**, 2331-2343
- 349 Inorganic Chemistry: Journey to Powerful resource. **2013**, 2, 01-04
- 348 Energy Gas Storage in Porous Polymers. 215-248
- 347 Production of Atomic Photochemical Hydrogen and Photoinjection of Hydrogen in Solids. **2013**, 241-282
- 346 An Interrupted In-Situ Method for Electrochemical Formation of Mg-Ni Intermetallics. **2014**, 683-693
- 345 Magnesium and Doped Magnesium Nanostructured Materials for Hydrogen Storage. **2014**, 297-319
- 344 An Interrupted In-Situ Method for Electrochemical Formation of Mg-Ni Intermetallics. 683-693
- 343 Effects of Humidification on Proton and Electron Conductivity of an Activated Carbon/Nafion Composite Electrode. **2014**, 465-474
- 342 Low-Temperature Fuel Cell Technology for Green Energy. **2015**, 1-38
- 341 Feasibility of Energy Generation from Chemical Reaction between Hydrogen Peroxide/Hydride. **2015**, 26, 271-277
- 340 Introduction. **2016**, 1-2
- 339 An Electrochemical Investigation of Mg/Ni Hydrogen Storage Alloys by Mechanical Alloying. **2017**, 375-380
- 338 Introduction to hydrogen storage in carbon materials. **2018**, 333-341
- 337 Crystal Structure and Hydrogen Storage Properties of Kalium Hydride from Theoretical Calculations. **2018**, 07, 147-151
- 336 Dry Reforming of Methane on LaSrNiAl Perovskite-Type Structures Synthesized by Solution Combustion. **2018**, 242-266

- 335 Introduction to metal hydrides of AB<sub>2</sub> laves phase compounds. **2018**, 73-74
- 334 Introduction to Mg-based metal hydrides. **2018**, 20-20
- 333 Raising the Dehydrogenation Rate of a Mg-CMC (Carboxymethylcellulose, Sodium Salt) Composite by Alloying Ni via Hydride-Forming Milling. **2018**, 56, 620-627 5
- 332 *Erj Edilebilir Nikel-Metal Hidrür (Ni-MH) Pillerinde Kullanılan Hidrojen Depolama AlaĖnlarındaki Son Geliřmeler.* **2018**, 7, 454-472 0
- 331 CHAPTER 2. High Temperature Co-electrolysis A Route to Syngas. **2019**, 42-99
- 330 Thin Film Hydrogen Storages. **2019**, 913-939
- 329 Thermal Energy Storage Systems Based on Metal Hydride Materials. **2019**, 283-315
- 328 Fabrication and Observation of Metastable to Stable Relaxation of Palladium Hydride Thin Films. **2019**, 62, 492-497 1
- 327 Comparison of Hydrogen Yield from Ball-Milled and Unmilled Magnesium Hydride in a Batch System Hydrogen Reactor. **2021**, 1003-1011 0
- 326 Overview of hydrogen compression materials based on a three-stage metal hydride hydrogen compressor. **2021**, 162465 4
- 325 Effect of Heat Treatment on Crystal Structure, Microstructure, and Hydrogenation Behavior of BCC 52Ti-12V-36Cr Alloys with Zr and Zr-Ni Additives. **2020**, 51, 1945-1952 0
- 324 Cluster nanoportals for the hydrogenation of underlying nanofilms. **2020**, 87-118
- 323 Hydrogen Gas Phase and Electrochemical Hydriding of LaNiM (M = Sn, Co, Al) Alloys. **2020**, 14, 1 1
- 322 Hydrogen. **2022**, 419-444
- 321 Recent development in sustainable technologies for clean hydrogen evolution: Current scenario and future perspectives. **2022**, 97-130 1
- 320 Scandium decorated C<sub>24</sub> fullerene as high capacity reversible hydrogen storage material: Insights from density functional theory simulations. **2022**, 573, 151389 7
- 319 SIMS studies of hydrogen interaction with the TiFe alloy surface: hydrogen influence on secondary ion yields. **2022**, 716, 121963
- 318 The Independent Effects of Cooling Rate and Na Addition on Hydrogen Storage Properties in Hypo-eutectic Mg Alloys. **2020**, 289-297 1

317	Hydrogen. <b>2020</b> , 168-194	
316	Calculation and Comparison of Thermodynamic Properties of Hydrogen Using Equations of State for Compressed Hydrogen Storage. <b>2020</b> , 31, 184-193	3
315	Surface Properties of LaNi <sub>5</sub> and TiFe <sub>2</sub> Future Opportunities of Theoretical Research in Hydrides. <b>2021</b> , 9,	
314	Homogeneous Catalysis for Sustainable Energy: Hydrogen and Methanol Economies, Fuels from Biomass, and Related Topics. <b>2021</b> ,	24
313	Significance of Hydrogen as Economic and Environmentally Friendly Fuel. <b>2021</b> , 14, 7389	12
312	Simulation and experimentation study on the performance of metal hydride storage vessels.	
311	Synergetic Effect of Graphene Oxide and Metal Organic Framework Nanocomposites as Electrocatalysts for Hydrogen Evolution Reaction. <b>2021</b> , 23-54	0
310	Parallel FTIR-ATR spectroscopy and gravimetry for the in situ hydrogen desorption measurement of NaAlH <sub>4</sub> powder compacts. <b>2020</b> , 59, 9510-9519	1
309	Spatial distribution and time evolution of metal-containing plasma of a low-current atmospheric pressure discharge with magnesium cathode. <b>2021</b> , 2064, 012129	
308	Work Function-Based Metal Oxide Semiconductor Hydrogen Sensor and Its Functionality: A Review. <b>2021</b> , 8, 2100649	4
307	Ammonia-Borane Dehydrogenation Catalyzed by Dual-Mode Proton-Responsive Ir-CNN Complexes. <b>2021</b> , 60, 18490-18502	1
306	Relationship Between Equilibrium Pressure and Rising Temperature of Heat Pump using Metal Hydride below Zero Degree. <b>2021</b> , 47, 200-205	
305	Hydrogen-Based Energy Storage Systems for Large-Scale Data Center Applications. <b>2021</b> , 13, 12654	1
304	Dopant binding with vacancies and helium in metal hydrides. <b>2021</b> , 559, 153437	0
303	Electrochemical hydrogen storage properties of mechanically alloyed Mg <sub>0.8</sub> Ti <sub>0.2-x</sub> Mn <sub>x</sub> Ni (x=0, 0.025, 0.05, 0.1) type alloys. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> ,	6.7 0
302	Stability, Electronic Structure and Thermodynamic Properties of Nanostructured MgH <sub>2</sub> Thin Films. <b>2021</b> , 14, 7737	2
301	Exploring yttrium doped C <sub>24</sub> fullerene as a high-capacity reversible hydrogen storage material: DFT investigations. <b>2021</b> , 162797	2
300	Ultrasound-excited hydrogen radical from NiFe layered double hydroxide for preparation of ultrafine supported Ru nanocatalysts in hydrogen storage of N-ethylcarbazole. <b>2021</b> , 81, 105840	0

- 299 Efficient hydrogen storage on Al decorated C<sub>24</sub>N<sub>24</sub>: a DFT study. **2021**, 45, 21225-21235 0
- 298 Introduction to Electrochemical Energy Storage. **2021**,
- 297 Enhanced Hydrogen Storage Properties of ZrTiVAl<sub>1-x</sub>Fe<sub>x</sub> High-Entropy Alloys Via Modified Fe Content.
- 296 Global hydrogen development - A technological and geopolitical overview. *International Journal of Hydrogen Energy*, **2022**, 47, 7016-7016 6.7 11
- 295 Use in the Healthcare Industry of the Hydrogen Energy Produced by Solid Hydrogen Sources Used in Fuel Cells. 171-174
- 294 Artificial intelligence and numerical models in hybrid renewable energy systems with fuel cells: Advances and prospects. **2022**, 253, 115154 9
- 293 Chemical characterization of Mg<sub>0.25</sub>Mn<sub>0.75</sub>-H(D) nanocomposites by Atom Probe Tomography (APT). **2022**, 896, 163015 1
- 292 Hydrogen absorption/desorption reactions of the (TiVNb)<sub>85</sub>Cr<sub>15</sub> multicomponent alloy. **2022**, 901, 163620 1
- 291 Hydrogen- and Methane-Loaded Shielding Materials for Mitigation of Galactic Cosmic Rays and Solar Particle Events. **2015**, 3, 59-81 2
- 290 Research of Nanomaterials as Electrodes for Electrochemical Energy Storage.. **2022**, 27, 0
- 289 Kinetics of the hydrogen absorption and desorption processes of hydrogen storage alloys: A review. **2022**, 29, 32-48 21
- 288 Catalytic Hydrogenation of C<sub>2</sub>H<sub>2</sub> over Amorphous CeNi<sub>2</sub>H<sub>x</sub> and Crystalline CeNi<sub>2</sub>: Effects of Hydrogen-Induced Amorphization and Oxidation. **2022**, 63,
- 287 Stability, reactivity and decomposition kinetics of surface passivated AlH<sub>3</sub> crystals. *International Journal of Hydrogen Energy*, **2022**, 47, 8916-8928 6.7 0
- 286 Effect of the Addition of 4wt% Zr to BCC Solid Solution Ti<sub>52</sub>V<sub>12</sub>Cr<sub>36</sub> at Melting/Milling on Hydrogen Sorption Properties. **2022**, 8,
- 285 Use of Hydrogen as Fuel: A Trend of the 21st Century. **2022**, 15, 311 8
- 284 High-Entropy Alloys for Solid Hydrogen Storage: Potentials and Prospects. **2022**, 7, 147 0
- 283 Just shake or stir. About the simplest solution for the activation and hydrogenation of an FeTi hydrogen storage alloy. *International Journal of Hydrogen Energy*, **2022**, 47, 5361-5371 6.7 0
- 282 An Overview of the Recent Advances of Additive-Improved Mg(BH<sub>4</sub>)<sub>2</sub> for Solid-State Hydrogen Storage Material. **2022**, 15, 862 1

281	Lattice-Resolution, Dynamic Imaging of Hydrogen Absorption into Bimetallic AgPd Nanoparticles.. <b>2022,</b>		0
280	Design of a hydrogen-powered bicycle for sustainable mobility. <b>2022,</b> 334, 06012		1
279	Hydrogen Storage and Transportation Technologies to Enable the Hydrogen Economy: Liquid Organic Hydrogen Carriers. <b>2022,</b>		0
278	A Focused Review on Engineering Application of Multi-Principal Element Alloy. <b>2022,</b> 8,		0
277	Rare-earth-based tungstates ceramic nanomaterials: recent advancements and technologies. <b>2022,</b> 175-203		0
276	Computational Evaluation of Li-doped g-C <sub>2</sub> N Monolayer as Advanced Hydrogen Storage Media. <i>International Journal of Hydrogen Energy</i> , <b>2022,</b> 47, 3625-3632	6.7	1
275	On the long-term cyclic stability of near-eutectic MgMg <sub>2</sub> Ni alloys. <i>International Journal of Hydrogen Energy</i> , <b>2022,</b> 47, 3939-3947	6.7	2
274	Study on hydrogen storage property of (ZrTiVFe) <sub>x</sub> Al <sub>y</sub> high-entropy alloys by modifying Al content. <i>International Journal of Hydrogen Energy</i> , <b>2022,</b> 47, 8409-8418	6.7	1
273	Solution-Phase Synthesis of PdH Nanocubes with Enhanced Stability and Activity toward Formic Acid Oxidation.. <b>2022,</b>		8
272	Light and stable LinB <sub>14</sub> (n=1B) clusters for high capacity hydrogen storage at room temperature: A DFT study. <i>International Journal of Hydrogen Energy</i> , <b>2022,</b> 47, 7861-7869	6.7	3
271	Multilayer crystal-amorphous Pd-based nanosheets on Si/SiO <sub>2</sub> with interface-controlled ion transport for efficient hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2022,</b> 47, 6777-6788	6.7	0
270	An investigation on the addition of SrTiO <sub>3</sub> to the hydrogen storage properties of the 4MgH <sub>2</sub> -Li <sub>3</sub> AlH <sub>6</sub> composite.		0
269	High-capacity reversible hydrogen storage in scandium decorated holey graphyne: Theoretical perspectives. <i>International Journal of Hydrogen Energy</i> , <b>2022,</b> 47, 7870-7883	6.7	3
268	Structural evolution and hydrogen storage performance of Mg <sub>3</sub> LaH (n = 90). <i>International Journal of Hydrogen Energy</i> , <b>2022,</b> 47, 7884-7891	6.7	1
267	Quantitative probing of hydrogen environments in quasicrystals by high-resolution NMR spectroscopy. <b>2022,</b> 226, 117657		0
266	Exploring tuning phenomena of THF-H <sub>2</sub> hydrates via molecular dynamics simulations. <b>2022,</b> 349, 118490		2
265	Optimisation-based system designs for deep offshore wind farms including power to gas technologies. <b>2022,</b> 310, 118540		0
264	Promotion mechanism analysis of metal hydride on the energy release characteristics of B/JP-10 suspension fuel. <b>2022,</b> 316, 123409		0

263	A design methodology of large-scale metal hydride reactor based on schematization for hydrogen storage. <b>2022</b> , 49, 104047		0
262	Effect of Microstructural Refinement and Na Addition on Hydrogenation Kinetics of Cast MgAlCa Alloy During the First Hydrogen Absorption Process. <b>2022</b> , 69-76		
261	Characterization of deposited Ti-doped lithium aluminium hydride thin film using dip coating method. <b>2022</b> , 2175, 012015		1
260	Tailoring the electronic, optical and mechanical properties of KMgH <sub>3</sub> and RbCaH <sub>3</sub> perovskite hydrides without and with Samarium. <b>2022</b> , 309, 122952		0
259	Bibliometric analysis of the research on hydrogen economy: An analysis of current findings and roadmap ahead. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	1
258	Y decorated all-boron B <sub>38</sub> nanocluster for reversible molecular hydrogen storage: A first-principles investigation. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	1
257	Electronic structure regulation toward the improvement of the hydrogenation properties of TiZrHfMoNb high-entropy alloy. <b>2022</b> , 905, 164150		0
256	in-situ formed Pt nano-clusters serving as destabilization-catalysis bi-functional additive for MgH <sub>2</sub> . <b>2022</b> , 435, 135050		1
255	Thermal analysis and optimization of stand-alone microgrids with metal hydride based hydrogen storage. <b>2022</b> , 52, 102043		0
254	Investigation of Heat and Mass Transfer in Liquid Hydrogen Vapour Dispersion.		
253	Influence of Point Defects on the Hydrogen Storage in Nickel Decorated Gec and Snc Nanotubes.		
252	Microstructural stability of a two-phase (O + B <sub>2</sub> ) alloy of the Ti-25Al-25Nb system (at.%) during thermal cycling in a hydrogen atmosphere. <b>2022</b> , 9, 270-282		0
251	Magnesium Alloys for Hydrogen Storage Processed by ECAP Followed by Low Temperature Rolling. 25,		0
250	SIMS STUDY OF THE TiFe ALLOY INTERACTION WITH OXYGEN. <b>2022</b> , 141-146		
249	Influence of Point Defects on the Hydrogen Storage in Nickel Decorated Gec and Snc Nanotubes.		
248	Unveiling two-dimensional magnesium hydride for hydrogen storage material via generative adversarial network.		
247	Understanding anharmonic effects on hydrogen desorption characteristics of MgH nanoclusters by trained deep neural network.. <b>2022</b> ,		0
246	The origin of anomalous hydrogen occupation in high entropy alloys. <b>2022</b> , 10, 7228-7237		1



245	Hydrogen energy systems for underwater applications. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	2
244	Bibliometric Mapping of Literature on High-Entropy/Multicomponent Alloys and Systematic Review of Emerging Applications.. <b>2022</b> , 24,		
243	Ultrahigh reversible hydrogen storage in K and Ca decorated 4-6-8 biphenylene sheet. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	1
242	Hydrogen Generation by Hydrolysis of MgH-LiH Composite.. <b>2022</b> , 15,		0
241	Development and experimental validation of kinetic models for the hydrogenation/dehydrogenation of Mg/Al based metal waste for energy storage. <b>2022</b> ,		1
240	Energy Decarbonization via Green H <sub>2</sub> or NH <sub>3</sub> ?. <b>2022</b> , 7, 1021-1033		2
239	Recent advances in metastable alloys for hydrogen storage: a review. 1		7
238	Effect of adding ZrM (M=Fe, Ni) intermetallic compounds on the hydrogen absorption/desorption properties of TiCrV alloy.. <b>2022</b> , 8, e09042		
237	An alternative platform of solid-state hydrides with polymers as composite/encapsulation for hydrogen storage applications: Effects in intermetallic and complex hydrides. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
236	Hydrogen storage in scandium decorated triazine based g-C <sub>3</sub> N <sub>4</sub> : Insights from DFT simulations. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
235	Graphene based electrodes for hydrogen fuel cells: A comprehensive review. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	1
234	Understanding Hydrogenation Chemistry at MgB Reactive Edges from Molecular Dynamics.. <b>2022</b> ,		2
233	Hydrogen sensing by plasmon decoupling effect in nanostructured Pd/Au films. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
232	Phase Change Cooling of a Metal Hydride Reactor for Rapid Hydrogen Absorption. <b>2022</b> , 15, 2490		0
231	A critical review on the current technologies for the generation, storage, and transportation of hydrogen. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> , 47, 13771-13802	6.7	8
230	Hydrogen sorption behaviour of Mg-5wt.%La alloys after the initial hydrogen absorption process. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	1
229	Carbon-based sorbents for hydrogen storage: A state of the art on challenges and their sustainability at operating conditions for renewable energy.. <b>2022</b> ,		0
228	Enhanced reversible hydrogen storage performance of light metal-decorated boron-doped siligene: A DFT study. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0

- 227 Recent Advances on Mg<sub>2</sub>Al Systems for Solid-State Hydrogen Storage: A Review. **2022**, 10, 2
- 226 Ultrafast hydrogenation of magnesium enabled by tetragonal ZrO<sub>2</sub> hierarchical nanoparticles. **2022**, 100200, 3
- 225 Free volume formation and the high strength of pure Mg after room temperature core-sheath ECAP passes. **2022**, 18, 147-158 0
- 224 Portable proton exchange membrane fuel cell using polyoxometalates as multi-functional hydrogen carrier. **2022**, 313, 118781 0
- 223 Influence of point defects on the hydrogen storage in nickel decorated GeC and SnC nanotubes. **2022**, 1212, 113691
- 222 Dehydrogenation performance of metal hydride container utilising MgH<sub>2</sub>-based composite. **2022**, 209, 118314 1
- 221 Rapid dehydrogenation of metallic materials under external electric field. **2022**, 31, 103350
- 220 Hydrogen localization and cluster formation in  $\beta$ -Zr from first-principles investigations. **2022**, 209, 111384 0
- 219 Experimental Evaluation for the Catalytic Effect of Nickel in Micron Size on Magnesium Hydride. **2021**, 16, 293-302
- 218 A Study on Electron Acceptor of Carbonaceous Materials for Highly Efficient Hydrogen Uptakes. **2021**, 11, 1524 0
- 217 Feasibility Investigation of Hydrogen Generation & Storage. **2021**,
- 216 Ca functionalized N-doped porphyrin-like porous C as an efficient material for storage of molecular hydrogen.. **2021**, 28, 20 1
- 215 Enhancing hydrogen storage performance via optimizing Y and Ni element in magnesium alloy. **2021**, 0
- 214 Analysis of the Potential Metal Hydrides for Hydrogen Storage in Automobile Applications. **2022**, 299-330
- 213 Assessment of Hydrogen as an Alternative Fuel: Status, Prospects, Performance and Emission Characteristics. **2022**, 135-171
- 212 Metal-organic frameworks and their composites for fuel and chemical production CO conversion and water splitting.. **2022**, 12, 11686-11707 0
- 211 A Conceptual DFT Approach Toward Analyzing Hydrogen Storage Potential. **2022**, 533-553 0
- 210 Effect of Y partially substituting La on the phase structure and hydrogen storage property of LaMgNi alloys. **2022**, 110744 0

209	Hydrogen storage on flat land materials, opportunities, and challenges: A review study.		0
208	Hydrogen Evolution from Additive-Free Formic Acid Dehydrogenation Using Weakly Basic Resin-Supported Pd Catalyst.. <b>2022</b> , 7, 14944-14951		0
207	A review on thermal performance enhancement of green cooling system using different adsorbent/refrigerant pairs. <b>2022</b> , 14, 100225		1
206	Data_Sheet_1.pdf. <b>2020</b> ,		
205	Thermal stability and structural studies on the mixtures of Mg(BH) and glymes.. <b>2022</b> ,		0
204	Ultrafast Hydrogenation of Magnesium Enabled by Tetragonal ZrO <sub>2</sub> Hierarchical Nanoparticles.		
203	Sustainable NaAlH <sub>4</sub> production from recycled automotive Al alloy.		1
202	Evaluation of Energy Storage Systems for Sustainable Development of Renewable Energy Systems - A Comprehensive Review.		1
201	Recent Advances in Bimetallic Catalysts for Hydrogen Production from Ammonia.. <b>2022</b> , e202200030		0
200	Milling induced surface modification of V-based catalyst to improve sorption kinetics of KSiH <sub>3</sub> : An XPS investigation. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
199	Evaluation of the Performance Degradation of a Metal Hydride Tank in a Real Fuel Cell Electric Vehicle. <b>2022</b> , 15, 3484		0
198	The impacts of charge transfer, localization, and metallicity on hydrogen retention and transport capacity. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
197	Clean hydrogen for mobility [Quo vadis?]. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	2
196	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> , <b>2022</b> ,	6.7	1
195	Na-modified cast hypo-eutectic MgMg <sub>2</sub> Si alloys for solid-state hydrogen storage. <b>2022</b> , 538, 231538		0
194	Atomic coatings effects on the combustion of aluminium hydride nanoparticles dispersed in liquid oxygen: Molecular dynamics simulation for the oxygenated environments. <b>2022</b> , 359, 119283		0
193	Ab-initio calculation of electronic, mechanical, optical and phonon properties of ZrXH <sub>3</sub> (X = Co, Ni and Cu): A key towards potential hydrogen storage materials.		1
192	Hydrogen Storage: Liquid and Chemical. <b>2012</b> , 144-165		0

191	Study on the Construction and Basic Application of Fluorinated Graphene Modified Magnesium Borohydride. <b>2022</b> , 545-556		
190	Dehydrogenation of formic acid mediated by a Phosphorus-Nitrogen PN3P-manganese pincer complex: Catalytic performance and mechanistic insights. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	
189	Paper-based microfluidic fuel cells and their applications: A prospective review. <b>2022</b> , 264, 115732		2
188	Predicting the hydrogen uptake ability of a wide range of zeolites utilizing supervised machine learning methods. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
187	A Bibliometric Analysis and Evaluation of Hydrogen Energy: The Top 100 Most Cited Studies.		
186	Materials for hydrogen storage at room temperature [An overview. <b>2022</b> ,		0
185	Synthesis, characterization and first hydrogen absorption/desorption of the Mg <sub>35</sub> Al <sub>15</sub> Ti <sub>25</sub> V <sub>10</sub> Zn <sub>15</sub> high entropy alloy. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
184	Synthesis of Bifunctional Ru-Pd Catalysts Following the Double Reduction Method: Hydrogenation/Dehydrogenation of Liquid Organic Hydrogen Carriers.		0
183	Hydrogen Energy as Future of Sustainable Mobility. 10,		1
182	Firs-principles investigation of ZrCo and its hydrides. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
181	Hydrogen storage in Majiagou carbonate reservoir in China: Geochemical modelling on carbonate dissolution and hydrogen loss. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	2
180	Hydrogen storage in metal hydride [A perspective on energy storage implemented experimentally and digitally for schools. <b>2022</b> , 29, 339-344		0
179	Hybrid DFT study of structural, electronic, magnetic and elastic properties of laves phase binary intermetallics RFe <sub>2</sub> (R = La, Ce, Pr and Nd). <b>2022</b> ,		0
178	Next-Generation Energy Harvesting and Storage Technologies for Robots Across All Scales. 2200045		0
177	Towards electrochemical hydrogen storage in liquid organic hydrogen carriers via proton-coupled electron transfers. <b>2022</b> ,		1
176	A review of recent advances in hydrogen purification for selective removal of oxygen: Deoxo catalysts and reactor systems. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	0
175	d-glucose and its analogue, d-glucosamine, as potential hydrogen storage materials: A quantum mechanical study. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7	1
174	Impact of Polymers on Magnesium-Based Hydrogen Storage Systems. <b>2022</b> , 14, 2608		0

173	Advanced aqueous batteries: Status and challenges.	1
172	Catalytic role of binary oxides ( CuO and Al <sub>2</sub> O <sub>3</sub> ) on hydrogen storage in MgH <sub>2</sub> .	0
171	Hydrogen Diffusion on, into and in Magnesium Probed by DFT: A Review. <b>2022</b> , 3, 285-302	0
170	Investigation of Hydrogen Production from Sodium Borohydride in the Presence of Ni/Al <sub>2</sub> O <sub>3</sub> . <b>2022</b> , 1050, 012012	
169	An Ab-initio study of the Y decorated 2D holey graphyne for hydrogen storage application. <b>2022</b> , 33, 405406	0
168	Thermodynamic analysis of low-temperature and high-pressure (cryo-compressed) hydrogen storage processes cooled by mixed-refrigerants. <i>International Journal of Hydrogen Energy</i> , <b>2022</b> ,	6.7 0
167	Reversible hydrogen adsorption in Ti-functionalized porous holey graphyne: Insights from first-principles calculation.	0
166	Hydrogen storage capacity of vanadium functionalized [2,2]paracyclophane: A density functional theory study. <b>2022</b> ,	
165	Application-oriented hydrolysis reaction system of solid-state hydrogen storage materials for high energy density target: A review. <b>2022</b> ,	3
164	Integration of thermal augmentation methods in hydride beds for metal hydride based hydrogen storage systems: Review and recommendation. <b>2022</b> , 52, 105039	0
163	Enhanced hydrogen adsorption in alkali metal based copper hexacyanoferrate Prussian blue analogue nanocubes. <b>2022</b> , 542, 231816	0
162	Hydrogen storage methods: Review and current status. <b>2022</b> , 167, 112743	11
161	Numerical simulation of a thermally driven hydrogen compressor as a performance optimization tool. <b>2022</b> , 323, 119628	0
160	Pd-modified LaNi <sub>5</sub> nanoparticles for efficient hydrogen storage in a carbazole type liquid organic hydrogen carrier. <b>2022</b> , 317, 121720	2
159	Ammonia Decomposition in the Process Chain for a Renewable Hydrogen Supply.	0
158	First-principles study of elastic, electronic and optical properties of Rb <sub>1-x</sub> Cs <sub>x</sub> MgH <sub>3</sub> and Cs <sub>1-y</sub> Rb <sub>y</sub> MgH <sub>3</sub> perovskite hydrides. <b>2022</b> , 110902	
157	Hydrogen in pipeline steels: Recent advances in characterization and embrittlement mitigation. <b>2022</b> , 104709	2
156	Computational Evaluation of Al-Decorated g-CN Nanostructures as High-Performance Hydrogen-Storage Media. <b>2022</b> , 12, 2580	1

155	Effects of CNTs, graphene, and organic additives on hydrogen storage performance of severely deformed ZK60 alloy. <b>2022,</b>	
154	Potential hydrogen storage materials from Li decorated N-doped Me-graphene.	
153	Design optimization of a magnesium-based metal hydride hydrogen energy storage system. <b>2022,</b> 12,	0
152	Reversible hydrogen storage capacity of Sc and Y functionalized [1,1]paracyclophane: Insights from density functional study. <b>2022,</b>	0
151	High capacity hydrogen storage on zirconium decorated $\beta$ -graphyne: A systematic first-principles study. <b>2022,</b>	1
150	Geometric improvement of hydrolysis reactor structure to enhance the sustainable production of hydrogen from $MgH_2$ . <b>2022,</b>	
149	In situ neutron diffraction of $NaAlD_4$ /carbon black composites during decomposition/deuteration cycles and the effect of carbon on phase segregation. <b>2022,</b>	0
148	Power-to-X: A review and perspective. <b>2022,</b> 165, 107948	3
147	Hydrogen and carbon dioxide uptake on scalable and inexpensive microporous carbon foams. <b>2022,</b> 343, 112141	0
146	Metal hydride-based hydrogen production and storage system for stationary applications powered by renewable sources. <b>2022,</b> 197, 398-405	0
145	A comprehensive review on hydrogen production and utilization in North America: Prospects and challenges. <b>2022,</b> 269, 115927	4
144	Electrochemical hydrogen storage, mechanical and thermal behaviors of novel Mg-based alloy. <b>2022,</b> 11, 1-9	
143	Influence of Nanosized $CoTiO_3$ Synthesized via a Solid-State Method on the Hydrogen Storage Behavior of $MgH_2$ . <b>2022,</b> 12, 3043	2
142	Current trends in hydrogen production, storage and applications in India: A review. <b>2022,</b> 53, 102677	1
141	Effect of oxygen on the hydrogen storage properties of TiFe alloys. <b>2022,</b> 55, 105543	1
140	Adoption of triply periodic minimal surface structure for effective metal hydride-based hydrogen storage. <b>2023,</b> 262, 125399	0
139	Modeling and simulation of hydrogenation process of $NaAlH_4$ . <b>2022,</b> 4, 100491	0
138	Impact of Hydrogen Liquefaction on Hydrogen Fuel Quality for Transport Applications (ISO-14687:2019). <b>2022,</b> 10, 1697	1

- 137 Quantum-Chemical Simulation of Molecular Hydrogen Abstraction from Magnesium Borohydride Triammoniate. **2022**, 67, 1591-1605 ○
- 136 On the Thermal Integration of Metal Hydrides with Phase Change Materials: Numerical Simulation Developments towards Advanced Designs. ○
- 135 Where to go for the Development of High-Performance H<sub>2</sub> Storage Materials at Ambient Conditions?. ○
- 134 Experimental hydrogen sorption study on a LaNi<sub>5</sub>-based 5 kg reactor with novel conical fins and water tubes and its numerical scale-up through a modular approach. **2022**, ○
- 133 MXene, Silicene and Germanene: Preparation and Energy Storage Applications. **2022**, 101144 ○
- 132 Synthesis, properties and thermal decomposition particularities of magnesium borohydride ammoniates. **2022**, ○
- 131 Structures and Electronic and Hydrogen Storage Properties of Magnesium Scandium Hydrides. **2022**, 61, 15569-15575 ○
- 130 Unraveling the Effect of Carbon Nanotube Oxidation on Solid-State Decomposition of Ammonia Borane/Carbon Nanotube Composites. **2022**, 126, 16587-16594 ○
- 129 High-capacity hydrogen storage in zirconium decorated psi-graphene: acumen from density functional theory and molecular dynamics simulations. **2022**, ○
- 128 Chemisorption solid materials for hydrogen storage near ambient temperature: a review. ○
- 127 Mg/MgH<sub>2</sub> hydrogen storage system destabilized by recyclable AlH<sub>3</sub>NaBH<sub>4</sub> composite. **2022**, ○
- 126 Fundamentals and recent advances in polymer composites with hydride-forming metals for hydrogen storage applications. **2022**, 47, 34139-34164 1
- 125 Thermal conductivity measurements using the transient hot-wire method: a review. **2022**, 33, 125022 ○
- 124 Status and challenges of applications and industry chain technologies of hydrogen in the context of carbon neutrality. **2022**, 376, 134347 ○
- 123 Optimal hydrogen carrier: Holistic evaluation of hydrogen storage and transportation concepts for power generation, aviation, and transportation. **2022**, 55, 105714 ○
- 122 Silicon nanostructures for solid-state hydrogen storage: A review. **2022**, ○
- 121 Stress Reduction of a V-Based BCC Metal Hydride Bed Using Silicone Oil as a Glidant. **2022**, 10, 167 ○
- 120 Development of Thin Film Solid Oxide Fuel Cell for Direct Use of Hydrocarbon Fuels. **2022**, 39, 773-777 ○



119	Impurity influence on the hydrogen diffusivity in B <sub>2</sub> TiFe. <b>2022,</b>	0
118	Effect of KCl Addition on First Hydrogenation Kinetics of TiFe. <b>2022, 2, 240-251</b>	0
117	Effect of yttrium content on microstructure and hydrogen storage properties of TiFe-based alloy. <b>2022,</b>	0
116	The Role of Hydrogen in the Visegrad Group Approach to Energy Transition. <b>2022, 15, 7235</b>	1
115	Effects of surface morphology changes on FTIR-ATR spectroscopy with compacted Sodium Alanate (NaAlH <sub>4</sub> ) during cycling. <b>2022,</b>	0
114	Optimization of the Laminate Structure of a Composite Cylinder Based on the Combination of Response Surface Methodology (RSM) and Finite Element Analysis (FEA). <b>2022, 27, 7361</b>	1
113	Bilayer Heterostructure of Boron Nitride and Graphene for Hydrogen Storage: A First-Principles Study. <b>2022, 36, 13307-13316</b>	0
112	Multi-functional Palladium-Ruthenium Nanocomposites: Approach towards Semi-Hydrogenation Catalysis and Hydrogen Sorption.	0
111	Impacts of Ce dopants on the hydrogen storage performance of Ti-Cr-V alloys. <b>2023, 934, 167947</b>	0
110	Characterization of Compositionally Complex Hydrides in a Metastable Refractory High-Entropy Alloy.	0
109	Cyclic Amide-Anchored NHC-Based Cp*Ir Catalysts for Bidirectional Hydrogenation/Dehydrogenation with CO <sub>2</sub> /HCO <sub>2</sub> H Couple.	1
108	The role of storage systems in hydrogen economy: A review. <b>2022, 108, 104843</b>	3
107	Potential reversible hydrogen storage in Li-decorated carbon allotrope PAI-Graphene: A first-principles study. <b>2022,</b>	1
106	Efficient dehydrogenation of high-concentration formic acid over PdAu/AC-NH <sub>2</sub> catalysts without additives under ambient conditions.	0
105	Metal doped tetrahedral silsesquioxane cages for hydrogen storage. <b>2023, 230, 116235</b>	0
104	Research progress of hydrogen energy and metal hydrogen storage materials. <b>2023, 55, 102974</b>	0
103	Influence of the phase evolution and hydrogen storage behaviors of Mg-RE alloy by a multi-valence Mo-based catalyst. <b>2023, 58, 106397</b>	1
102	Geochemical modelling of hydrogen wettability on Quartz: Implications for underground hydrogen storage in sandstone reservoirs. <b>2023, 371, 121076</b>	0

101	Insights into structural and electronic properties of (LiH) (n = 505) clusters: Density functional calculations. <b>2023</b> , 295, 127189	0
100	A review of waste-to-hydrogen conversion technologies for solid oxide fuel cell (SOFC) applications: Aspect of gasification process and catalyst development. <b>2023</b> , 329, 117077	1
99	Remarkable low-temperature hydrogen cycling kinetics of Mg enabled by VH nanoparticles. <b>2023</b> , 144, 168-177	3
98	TiMn hydrogen storage alloys: from properties to applications. <b>2022</b> , 12, 35744-35755	0
97	Hydrogen storage and sensing ability of group 8B transition metal doped B <sub>12</sub> N <sub>12</sub> nanocages: A DFT investigation.	0
96	Enhanced electrochemical hydrogen storage performance of titanate-based nanostructures synthesized by facile auto-combustion: Li <sub>2</sub> TiO <sub>3</sub> nanostructures versus LaTiO <sub>3</sub> nanoperovskites. <b>2022</b> ,	0
95	Effects of highly dispersed Ni nanoparticles on the hydrogen storage performance of MgH <sub>2</sub> . <b>2023</b> , 30, 54-62	0
94	Hydrogen Technology Development and Policy Status by Value Chain in South Korea. <b>2022</b> , 15, 8983	1
93	Novel Nanomaterials for Hydrogen Production and Storage: Evaluating the Futurity of Graphene/Graphene Composites in Hydrogen Energy. <b>2022</b> , 15, 9085	0
92	The effect of copper coated metal hydride at different ratios on the reaction kinetics. <b>2022</b> ,	0
91	Density functional theory study of reversible hydrogen storage in monolayer beryllium hydride by decoration with boron and lithium. <b>2022</b> ,	0
90	Recent Developments on Bioinspired Cellulose Containing Polymer Nanocomposite Cation and Anion Exchange Membranes for Fuel Cells (PEMFC and AFC). <b>2022</b> , 14, 5248	2
89	Role of vacancies and transition metals on the thermodynamic properties of MgH <sub>2</sub> : Ab-initio study. <b>2022</b> ,	0
88	Impact of severe plastic deformation on kinetics and thermodynamics of hydrogen storage in magnesium and its alloys. <b>2022</b> ,	1
87	Remarkable enhancement in durability of ZrCo alloy against hydrogen induced disproportionation by Ti and Nb co-substitution. <b>2022</b> ,	0
86	Bibliometric Analysis of Global Trends around Hydrogen Production Based on the Scopus Database in the Period 2011-2021. <b>2023</b> , 16, 87	1
85	Hydrogen storage using novel graphene-carbon nanotube hybrid. <b>2022</b> ,	0
84	Analysis of phase transformation in Mg <sub>2</sub> NiH <sub>4</sub> via in situ synchrotron X-ray measurements. <b>2022</b> , 168594	0

- 83 Peculiarities of the absorption and desorption of hydrogen by opal matrices. **2023**, ○
- 82 Nanointerface Engineering of Metal Hydrides for Advanced Hydrogen Storage. ○
- 81 Substitutional effect of Ti-based AB<sub>2</sub> hydrogen storage alloys: A density functional theory study. **2023**, ○
- 80 Pd-based Metallic Glasses as Promising Materials for Hydrogen Energy Applications. ○
- 79 An Unusual Core Engineering on A Copper Hydride Nanoball. ○
- 78 Enhanced reversibility of fluorine substituted bis-BN cyclohexane for hydrogen storage: A first-principles approach. **2023**, ○
- 77 A focused review of the hydrogen storage tank embrittlement mechanism process. **2023**, ○
- 76 Carbon-free green hydrogen production process with induction heating-based ammonia decomposition reactor. **2023**, 457, 141203 ○
- 75 Phase transformations and microstructure evolutions during depressurization of hydrogenated FeMnSiCr alloy. **2022**, ○
- 74 Development of Reference Materials for Calibration of the Hydrogen Analyzer at High Concentration. **2022**, 18, 29-40 ○
- 73 Development of high-performance Low-V BCC alloy for hydrogen storage by suction casting. **2022**, ○
- 72 Structure and properties of titanium hydride powder obtained from titanium sponge by SHS hydrogenation. **2022**, 15-24 ○
- 71 Application of Nanomaterials for Renewable Energy Production. **2023**, 1-20 ○
- 70 Advancements in hydrogen energy research with the assistance of computational chemistry. **2023**, ○
- 69 Role of electron localisation in H adsorption and hydride formation in the Mg basal plane under aqueous corrosion: a first-principles study. ○
- 68 Progress on nano-scaled alloys and mixed metal oxides in solid-state hydrogen storage; an overview. **2023**, 61, 106722 ○
- 67 Magnesium: properties and rich chemistry for new material synthesis and energy applications. **2023**, 52, 2145-2192 ○
- 66 Piezovoltaics from PdH<sub>x</sub>. **2023**, 14, 3168-3173 ○

- 65 Hydrogen generation from metal chloride doped sodium-borohydride by thermolysis at low temperature: The effect of material preparation methods. **2023**, 944, 169173 ○
- 64 A comparison study on the sensing ability of C20/B12N12 nanocage towards beryllium hydride cluster and beryllium hydride molecules using density functional theory (DFT). **2023**, 35, 105813 ○
- 63 In situ analysis of phase constituents evolution upon hydrogen cycling of cold-forged Mg-Ni powders. **2023**, 947, 169543 ○
- 62 The study of electrochemical hydrogen storage behavior of the UiO-66 framework on the metal/reduced graphene oxide substrate. **2023**, 341, 127624 ○
- 61 Epitomizing biohydrogen production from microbes: Critical challenges vs opportunities. **2023**, 227, 115780 ○
- 60 Hydrogen storage performance and phase transformations in as-cast and extruded Mg-Ni-Gd-Y-Zn-Cu alloys. **2023**, 151, 162-177 ○
- 59 Strategies to enhance hydrogen storage performances in bulk Mg-based hydrides. **2023**, 153, 139-158 ○
- 58 Hydrogen absorption-desorption properties and hydrolysis performance of MgH<sub>2</sub>-Zr<sub>3</sub>V<sub>3</sub>O<sub>0.6</sub>Hx and MgH<sub>2</sub>-Zr<sub>3</sub>V<sub>3</sub>O<sub>0.6</sub>Hx-C composites. **2023**, 65, 107245 ○
- 57 State-of-the-art hydrogen generation techniques and storage methods: A critical review. **2023**, 64, 107196 1
- 56 Effect of SiO<sub>2</sub>-doped on microstructural evolution and hydrogen storage performances of AB<sub>2</sub> type alloy. **2023**, 950, 169893 ○
- 55 Machine-learning models to predict hydrogen uptake of porous carbon materials from influential variables. **2023**, 316, 123807 ○
- 54 Transition from chemisorption to physisorption of H<sub>2</sub> on Ti functionalized [2,2,2]paracyclophane: A computational search for hydrogen storage. **2023**, 63, 106951 ○
- 53 Design, development and hydrogen storage performance testing of a tube bundle metal hydride reactor. **2023**, 63, 106936 ○
- 52 Exploring Mg decorated antimonene for promising hydrogen storage material: A DFT outlook. **2023**, 161, 107471 ○
- 51 Amorphous alloys for hydrogen storage. **2023**, 941, 168945 1
- 50 Performance evaluation of a novel concentric metal hydride reactor assisted with phase change material. **2023**, 224, 120065 ○
- 49 Reactivity of Transition Metal Complexes with Small Molecules. **2011**, 420-480 ○
- 48 Enhancement of hydrogen storage properties from amorphous Mg<sub>85</sub>Ni<sub>5</sub>Y<sub>10</sub> alloy. **2023**, 605, 122167 ○

- 47 Investigation of ZnO/V<sub>2</sub>O<sub>5</sub> hybrid nanocomposite-based ultraviolet photodetector and hydrogen gas sensor. **2023**, 34, ○
- 46 Hydrogen storage behaviour of Cr- and Mn-doped Mg<sub>2</sub>Ni alloys fabricated via high-energy ball milling. **2023**, ○
- 45 Hydrogen adsorption study on nanostructured Ag/Rh films grown by supersonic cluster beam deposition. **2023**, ○
- 44 Enhanced reversible hydrogen storage performance of Mg-decorated g-C<sub>2</sub>N: First principles calculations. **2023**, 220, 112046 ○
- 43 A Review on Hydrogen Storage Techniques and Their Applications in Novel Initiatives in Australia. **2022**, ○
- 42 Catalyst-free synthesis of lithium hydride at room temperature. **2023**, 59, 2660-2663 ○
- 41 Hydrogen Production and Polymer Electrode Membrane (PEM) Fuel Cells for Electrical Vehicles. **2023**, 149-198 ○
- 40 Recent Advancements in Nano-Metal-Based Electrocatalysts: Green Hydrogen Production and Storage. 43-71 ○
- 39 Thermal batteries based on inverse barocaloric effects. **2023**, 9, ○
- 38 Recent advancements in hydrogen storage - Comparative review on methods, operating conditions and challenges. **2023**, ○
- 37 Effects of NH<sub>4</sub><sup>+</sup> doping on the hydrogen storage properties of metal hydrides. **2023**, ○
- 36 Preparation, Quantification, and Reaction of Pd Hydrides on Pd/Al<sub>2</sub>O<sub>3</sub> in Liquid Environment. **2023**, 13, 3323-3332 ○
- 35 Topological Nodal Surface and Quadratic Dirac Semimetal States and van Hove Singularities in ScH<sub>3</sub> and LuH<sub>3</sub> Superconductors. **2023**, 8, 9607-9613 ○
- 34 A systematic review on green hydrogen for off-grid communities: Technologies, advantages, and limitations. **2023**, ○
- 33 Comparative study on the performance of the application of clean alternative fuels in SOFC/ICE hybrid power systems on electric aircraft. 11, ○
- 32 A systemic review of hydrogen supply chain in energy transition. ○
- 31 Hydrogen supply chain: Current status and prospects. ○
- 30 Hydrogen Hydrate Promoters for Gas Storage: A Review. **2023**, 16, 2667 ○

- 29 Boronation of Biomass-Derived Materials for Hydrogen Storage. **2023**, 3, 244-279 ○
- 28 Hydrogen Production, Purification, Storage, Transportation, and Their Applications: A Review. ○
- 27 Density-functional quantum computations on bandgap engineering and tuning of optoelectronic properties of MgH<sub>2</sub> via Mo doping: Prospects and potential for clean energy hydrogen-storage fuel and optoelectronic applications. **2023**, ○
- 26 Trend analysis and evaluation of hydrogen energy and hydrogen storage research. ○
- 25 Combined effect of multiple atomic interactions and structural catalysis on the dehydrogenation from MgH<sub>2</sub> in Mg(H<sub>2</sub>)-Ni-rGO system. ○
- 24 Preparation of Anionic Surfactant-Based One-Dimensional Nanostructured Polyaniline Fibers for Hydrogen Storage Applications. **2023**, 15, 1658 ○
- 23 Improvement of Hydrogen Absorption and Desorption Kinetics of Metallic Magnesium by Mechanical Activation. ○
- 22 Hydrides for Efficient Hydrogen Storage. **2022**, 1-46 ○
- 21 Reversible hydrogen storage in Li-functionalized [2,2,2]paracyclophane at cryogenic to room temperatures: A computational quest. ○
- 20 Tuning the Interaction between Pd and MgAl<sub>2</sub>O<sub>4</sub> To Enhance the Dehydrogenation Activity and Selectivity of Dodecahydro-N-ethylcarbazole. **2023**, 11, 5485-5494 ○
- 19 Influence of Reactive Amine-Based Catalysts on Cryogenic Properties of Rigid Polyurethane Foams for Space and On-Ground Applications. **2023**, 16, 2798 ○
- 18 Review of thermal management technology for metal hydride reaction beds. ○
- 17 A review of renewable hydrogen hybrid energy systems towards a sustainable energy value chain. ○
- 16 Improvement of decomposition temperature and gravimetric density of MgH<sub>2</sub> by transition metals and vacancies: A comparison study. **2023**, 115170 ○
- 15 Nanostructuring of Mg-Based Hydrogen Storage Materials: Recent Advances for Promoting Key Applications. **2023**, 15, ○
- 14 Calculated Outstanding Energy-Storage Media by Aluminum-Decorated Carbon Nitride (g-C<sub>3</sub>N<sub>4</sub>): Elucidating the Synergistic Effects of Electronic Structure Tuning and Localized Electron Redistribution. **2023**, 13, 655 ○
- 13 Experimental studies on LaNi<sub>4.25</sub>Al<sub>0.75</sub> alloy for hydrogen and thermal energy storage applications. **2023**, ○
- 12 Thermal performance enhancement of metal hydride reactor for hydrogen storage with graphene oxide nanofluid: Model prediction with machine learning. **2023**, ○

- 11 Local electronic structure of interstitial hydrogen in MgH<sub>2</sub> inferred from muon study. **2023**, 35, 285503
- 10 Hydrogen generation from sodium hypophosphite catalyzed by metallic nanoparticles supported on graphitic carbon nitride. **2023**,
- 9 Temperature and hydrogen partial pressure dependence of zirconium hydride surface structures and stabilities. **2023**,
- 8 Role of Pore Structure Parameters of Clay and Modified Clay Minerals on Their Hydrogen Adsorption at Low- and High-Pressure Conditions.
- 7 Bio-hydrogen Production Using Microbial Electrolysis Cell. **2023**, 21-39
- 6 Selecting an optimum kinetic model for gas-solid adsorption based on statistical approaches and a model selection criterion. **2023**, 120581
- 5 Parametric Optimization of a Truncated Conical Metal Hydride Bed Surrounded by a Ring of PCM for Heat Recovery. **2023**, 16, 3234
- 4 Hydrogen and helium trapping in hcp beryllium. **2023**, 6,
- 3 Hydrogen storage properties of MgH<sub>2</sub>/m: Ni-catalysis vs. mechanical milling. **2023**,
- 2 Performance evaluation of a solar thermal storage system proposed for concentrated solar power plants. **2023**, 229, 120665
- 1 Hydrogen storage thermodynamics and kinetics of the as-cast and milled Ce-Mg-Ni-based alloy. **2023**, 35, 106217