

CITATION REPORT

List of articles citing

Nanocrystalline magnesium for hydrogen storage

DOI: 10.1016/s0925-8388(99)00073-0

Journal of Alloys and Compounds, 1999, 288, 217-225.

Source: <https://exaly.com/paper-pdf/30755986/citation-report.pdf>

Version: 2024-04-24

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

#	Paper	IF	Citations
972	Nanocrystalline magnesium for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 1999 , 288, 217-225	5.7	915
971	Synergy of hydrogen sorption in ball-milled hydrides of Mg and Mg ₂ Ni. <i>Journal of Alloys and Compounds</i> , 1999 , 289, 197-206	5.7	268
970	A thermal analysis investigation of the hydriding properties of nanocrystalline Mg ₂ Ni based alloys prepared by high energy ball milling. <i>Journal of Alloys and Compounds</i> , 2000 , 305, 82-89	5.7	28
969	Hydrogen desorption behavior from magnesium hydrides synthesized by reactive mechanical alloying. <i>Journal of Alloys and Compounds</i> , 2001 , 321, 46-53	5.7	148
968	Sensitivity of Nanocrystalline MgH ₂ /Hydride Composite to the Carbon Monoxide during a Long-Term Cycling. 2001 , 1, 175-178		29
967	Hydrogen Storage Capacity Improvement of Nanostructured Materials. 2001 , 704, 851		
966	Microstructure and Protium Absorbing/Desorbing Characteristics of Mg ₂ Ni-Mn Alloys. 2001 , 42, 1305-1311		4
965	Improvement of Hydrogen Storage Properties of Mg-Ni Alloys by Rare-Earth Addition. 2001 , 42, 712-716		28
964	Magnesium film implanted with vanadium ions for hydrogen storage. 2001 ,		2
963	Mechanical milling of magnesium powder. 2001 , 318, 22-33		50
962	Thermal analysis investigation of hydriding properties of nanocrystalline Mg ₂ Ni- and Mg ₂ Fe-based alloys prepared by high-energy ball milling. 2001 , 16, 45-57		31
961	Hydrogen in Nanostructured, Carbon-Related, and Metallic Materials. 2002 , 27, 705-711		49
960	Reactive mechanical grinding of magnesium in hydrogen and the effects of additives. 2002 , 17, 351-361		7
959	Hydriding-Dehydriding Properties of Mg-Rich Mg-Ni-Nd Alloys with Refined Microstructures. 2002 , 43, 1732-1736		23
958	Hydrogen-Storage Properties and Structure Characterization of Melt-Spun and Annealed Mg-Ni-Nd Alloy. 2002 , 43, 417-420		27
957	Hydrogen in Metals. 2002 , 109-143		4
956	New Trends in Intercalation Compounds for Energy Storage. 2002 ,		8

955	Hydriding kinetics of nano-phase composite hydrogen storage alloys prepared by mechanical alloying of Mg and $MmNi_{5x}(CoAlMn)_x$. <i>Journal of Alloys and Compounds</i> , 2002 , 330-332, 708-713	5-7	53
954	Effect of reactive mechanical grinding on chemical and hydrogen sorption properties of the Mg+10 wt.% Co mixture. <i>Journal of Alloys and Compounds</i> , 2002 , 330-332, 738-742	5-7	33
953	Hydrogen storage properties of amorphous and nanocrystalline $ZrNiV$ alloys. <i>Journal of Alloys and Compounds</i> , 2002 , 330-332, 732-737	5-7	10
952	Structure of nanocomposite metal hydrides. <i>Journal of Alloys and Compounds</i> , 2002 , 330-332, 727-731	5-7	66
951	Fabrication and evaluation of hydriding/dehydriding behaviors of Mg+10 wt.%Ni alloys by rotation-cylinder method. <i>Journal of Alloys and Compounds</i> , 2002 , 333, L1-L6	5-7	10
950	MgBeTi _{1.2} (amorphous) composite for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2002 , 334, 243-248	5-7	34
949	Hydrogen sorption of Mg-based mixtures elaborated by reactive mechanical grinding. <i>Journal of Alloys and Compounds</i> , 2002 , 336, 292-296	5-7	65
948	Synthesis of Mg_2FeH_6 by reactive mechanical alloying: formation and decomposition properties. <i>Journal of Alloys and Compounds</i> , 2002 , 339, 261-267	5-7	107
947	Hydrogenation characteristics of air-exposed magnesium films. <i>Journal of Alloys and Compounds</i> , 2002 , 345, 158-166	5-7	55
946	Cycling and thermal stability of nanostructured MgH_2/Cr_2O_3 composite for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2002 , 347, 319-323	5-7	169
945	Fabrication of $MgNi$ hydrogen storage alloys by rotation-cylinder method. 2002 , 8, 495-501		2
944	Hydrogen storage properties of nanocomposite $MgNiCuCrCl_3$ prepared by mechanical alloying. 2002 , 335, 43-48		24
943	The electrochemical impedance of metal hydride electrodes. 2002 , 47, 2871-2884		33
942	Optical properties of MgH_2 measured in situ by ellipsometry and spectrophotometry. 2003 , 68,		125
941	Investigation of dehydrogenation mechanism of MgH_2/Nb nanocomposites. <i>Journal of Alloys and Compounds</i> , 2003 , 348, 319-324	5-7	128
940	The effect of grain refining on the discharge capacity of $Mg_2Ni/MmNi_{5x}(CoAlMn)_x$ composite prepared by mechanical alloying. <i>Journal of Alloys and Compounds</i> , 2003 , 349, 284-289	5-7	16
939	Structural stability of mechanically alloyed (Mg+10Nb) and (MgH ₂ +10Nb) powder mixtures. <i>Journal of Alloys and Compounds</i> , 2003 , 349, 217-223	5-7	50
938	Dehydriding kinetics of a Mg9.5 wt% V sample studied by high pressure differential scanning calorimetry. <i>Journal of Alloys and Compounds</i> , 2003 , 356-357, 584-587	5-7	6

937	Hydrogenation properties of nanocrystalline Mg- and Mg ₂ Ni-based compounds modified with platinum group metals (PGMs). <i>Journal of Alloys and Compounds</i> , 2003 , 356-357, 598-602	5-7	30
936	Preparation and hydriding/dehydriding properties of mechanically milled Mg ₈₀ wt% TiMn _{1.5} composite. <i>Journal of Alloys and Compounds</i> , 2003 , 354, 296-302	5-7	24
935	Synthesis of hydrides by mechanical alloying in the Mg ₈₀ Ni ₂₀ system. <i>Journal of Alloys and Compounds</i> , 2003 , 356-357, 588-592	5-7	5
934	Effect of milling atmosphere on the hydriding properties of a Mg ₈₀ amorphous Zr _{0.9} Ti _{0.1} (Ni _{0.57} Mn _{0.28} V _{0.1} Co _{0.05}) _{2.1} composite. <i>Journal of Alloys and Compounds</i> , 2003 , 361, 276-285	5-7	3
933	Hydriding Behaviour of Mg-C Nanocomposites. 2003 , 801, 70		2
932	Hydrogen Storage Properties of Magnesium Based Nanostructured/Amorphous Composite Materials. 2003 , 801, 56		1
931	Hydrogenation of nanocrystalline Mg-based alloys. 2003 , 801, 96		
930	Magnesium. 2003 ,		1
929	Structural Stability and Dehydrogenation of (MgH ₂ +Al, Nb) Powder Mixtures during Mechanical Alloying. 2003 , 44, 2356-2362		12
928	Hydrogen storage properties of mechanically alloyed Mg ₈₀ mol% LaNi _{0.5} composite. 2004 , 19, 2871-2876		16
927	Nano-Columnar Mg Thin Films Created by Plasma Sputter Deposition for Improved Hydrogen Kinetics and Storage Properties. 2004 , 837, 7		1
926	Catalytic effect of 3d transition metals on hydrogen storage properties in mechanically milled graphite. 2004 , 65, 535-539		44
925	Effect of Hydrogen on the amorphous structure of the alloy Mg ₆₅ Cu ₂₅ Y ₁₀ under electrochemical saturation. 2004 , 43, 513-519		
924	Effect of hydrogen on the amorphous structure of the alloy Mg ₆₅ Cu ₂₅ Y ₁₀ under electrochemical saturation. 2004 , 43, 513-519		2
923	Structural evolution of nanocrystalline Pd/Mg bilayers under deuterium absorption and desorption cycles. 2004 , 469-470, 350-355		20
922	Hydrogen absorption performance of TiV-based alloys surface modified by carbon nanotubes. 2004 , 333, 468-472		2
921	Hydrogen storage properties of magnesium ultrafine particles prepared by hydrogen plasma-metal reaction. 2004 , 110, 221-226		103
920	The effect of ball milling and equal channel angular pressing on the hydrogen absorption/desorption properties of Mg _{99.95} wt% Zn _{0.05} wt% Zr (ZK60) alloy. 2004 , 52, 405-414		143

919	Microstructure and hydrogen storage property of Mg/MWNTs composites. <i>Journal of Alloys and Compounds</i> , 2004 , 372, 231-237	5-7	70
918	Synthesis and hydrogen storage properties of Mg-based alloys. <i>Journal of Alloys and Compounds</i> , 2004 , 370, 123-128	5-7	158
917	Preparation and hydrogenation characteristics of Mg ₈₀ wt.% Ti _{37.5} V ₂₅ Cr _{37.5} composite. <i>Journal of Alloys and Compounds</i> , 2004 , 375, 265-269	5-7	23
916	Hydrogen sorption properties of Mg/Mn ₂ multi-layer film prepared by thermal evaporation. <i>Journal of Alloys and Compounds</i> , 2004 , 375, 313-317	5-7	13
915	Environmental degradation by hydrolysis of nanostructured MgH ₂ hydride synthesized by controlled reactive mechanical milling (CRMM) of Mg. <i>Journal of Alloys and Compounds</i> , 2004 , 376, 222-231	5-7	30
914	Hydrogenation of transition element additives (Ti, V) during ball milling of magnesium hydride. <i>Journal of Alloys and Compounds</i> , 2004 , 383, 205-208	5-7	84
913	Characterisation of Mg _x wt.% FeTi (x = 5 ₀) and Mg ₈₀ wt.% FeTiMn hydrogen absorbing materials prepared by mechanical alloying. <i>Journal of Alloys and Compounds</i> , 2004 , 384, 283-295	5-7	44
912	Controlled mechano-chemical synthesis of nanostructured ternary complex hydride Mg ₂ FeH ₆ under low-energy impact mode with and without pre-milling. <i>Journal of Alloys and Compounds</i> , 2004 , 384, 231-248	5-7	56
911	Electrochemical hydrogenation of Mg ₆₅ Cu ₂₅ Y ₁₀ metallic glass. <i>Journal of Alloys and Compounds</i> , 2004 , 364, 229-237	5-7	55
910	Lithium nitride for reversible hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2004 , 365, 271-276	5-7	276
909	Correlation between hydrogen storage properties and structural characteristics in mechanically milled magnesium hydride MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2004 , 366, 269-273	5-7	99
908	Composite Materials based on Light Elements for Hydrogen Storage. 2005 , 46, 1-14		71
907	Hydrogen storage properties of magnesium based nanostructured composite materials. 2005 , 117, 37-44		65
906	Plasma hydrogenation of MgAl thin films and H ₂ effusion. <i>Vacuum</i> , 2005 , 78, 477-481	3-7	
905	Hydrogen desorption from ball milled MgH ₂ catalyzed with Fe. 2005 , 43, 19-27		87
904	Growth and hydrogenation of ultra-thin Mg films on Mo(111). 2005 , 584, 17-26		18
903	Hydrogenation Properties of Mg-TiNi Hydrogen Storage Composites Materials. 2005 , 486-487, 586-589		1
902	Feasibility study of the direct mechano-chemical synthesis of nanostructured magnesium tetrahydroaluminate (alanate) [Mg(AlH ₄) ₂] complex hydride. 2005 , 16, 2261-74		22

8901	Electronic and optical properties of β and β' phases of MgH ₂ : A first-principles GW investigation. 2005 , 98, 096106		21
8900	H-sorption in MgH ₂ nanocomposites containing Fe or Ni with fluorine. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 409-412	5-7	66
899	ReaxFF(MgH) reactive force field for magnesium hydride systems. 2005 , 109, 851-9		209
898	High hydrogen storage capacity of nanosized magnesium synthesized by high energy ball-milling. <i>Journal of Alloys and Compounds</i> , 2005 , 386, 211-216	5-7	152
897	Improvement of activation performance of the quenched TiV-based BCC phase alloys. <i>Journal of Alloys and Compounds</i> , 2005 , 386, 258-260	5-7	17
896	Microstructural evolution during mechanical alloying of Mg and Ni. <i>Journal of Alloys and Compounds</i> , 2005 , 391, 267-276	5-7	29
895	Effect of Ti catalyst with different chemical form on LiNi hydrogen storage properties. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 439-442	5-7	90
894	Electronic and optical properties of pressure induced phases of MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 220-223	5-7	15
893	Thermal stability of nanocrystalline magnesium for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 499-502	5-7	57
892	Processing by controlled mechanical milling of nanocomposite powders Mg + X (X = Co, Cr, Mo, V, Y, Zr) and their hydrogenation properties. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 507-510	5-7	18
891	Local bonding structure in mechanically activated TiH ₂ and TiH ₂ +graphite mixture. <i>Journal of Alloys and Compounds</i> , 2005 , 395, 240-246	5-7	9
890	Catalytic effect of Ni nano-particle and Nb oxide on H-desorption properties in MgH ₂ prepared by ball milling. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 716-719	5-7	105
889	Particle size and catalytic effect on the dehydriding of MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2005 , 399, 237-241	5-7	83
888	Thermodynamic properties and absorption-desorption kinetics of Mg ₈₇ Ni ₁₀ Al ₃ alloy synthesised by reactive ball milling under H ₂ atmosphere. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 27-30	5-7	17
887	Hydrogen storage in magnesium clusters: quantum chemical study. 2005 , 127, 16675-80		493
886	Catalytic effect of nanoparticle 3d-transition metals on hydrogen storage properties in magnesium hydride MgH ₂ prepared by mechanical milling. 2005 , 109, 7188-94		439
885	Effects of SWNT and metallic catalyst on hydrogen absorption/desorption performance of MgH ₂ . 2005 , 109, 22217-21		82
884	Mg-based nanocomposites with high capacity and fast kinetics for hydrogen storage. 2006 , 110, 11697-703		80

883	Particle size, grain size and MgH_2 effects on the desorption properties of nanocrystalline commercial magnesium hydride processed by controlled mechanical milling. 2006 , 17, 3856-3865		191
882	Thermal destabilization of binary and complex metal hydrides by chemical reaction: A thermodynamic analysis. 2006 , 30, 65-69		70
881	Investigation of the hydrogen desorption properties of Mg + 10 wt.%X (X = V, Y, Zr) submicrocrystalline composites. <i>Journal of Alloys and Compounds</i> , 2006 , 414, 240-247	5.7	65
880	Phase structures and electrochemical properties of the laser sintered LaNi_5 wt.% Mg_2Ni composites. <i>Journal of Alloys and Compounds</i> , 2006 , 414, 317-321	5.7	11
879	Remarkable improvement of hydrogen sorption kinetics in magnesium catalyzed with Nb_2O_5 . <i>Journal of Alloys and Compounds</i> , 2006 , 420, 46-49	5.7	207
878	Electrochemical hydrogen storage in MgSc alloys: A comparative study between thin films and bulk materials. <i>Journal of Alloys and Compounds</i> , 2006 , 417, 280-291	5.7	56
877	Hydrogen storage properties of MgH_2 /SWNT composite prepared by ball milling. <i>Journal of Alloys and Compounds</i> , 2006 , 420, 278-282	5.7	109
876	Hydrogen storage properties of Mg/TiO_2 nanocomposites: The role of catalyst distribution and grain size. <i>Journal of Alloys and Compounds</i> , 2006 , 424, 289-293	5.7	31
875	Particle size effects on the desorption properties of nanostructured magnesium dihydride (MgH_2) synthesized by controlled reactive mechanical milling (CRMM). <i>Journal of Alloys and Compounds</i> , 2006 , 424, 356-364	5.7	111
874	Hydrogen reaction kinetics of Mg-based alloys synthesized by mechanical milling. <i>Journal of Alloys and Compounds</i> , 2006 , 425, 367-372	5.7	38
873	Hydriding Chemical Vapor Deposition of Metal Hydride Nano-Fibers. 2006 , 47, 931-934		23
872	Preparation and properties of hydrogen-storage composites in the MgH_2 -C system. 2006 , 42, 726-732		27
871	Hydrogen absorption and desorption characteristics in the $\text{La}_{0.5}\text{Ni}_{1.5}\text{Mg}_{17}$ prepared by hydriding combustion synthesis. <i>International Journal of Hydrogen Energy</i> , 2006 , 31, 497-503	6.7	25
870	Microstructure, surface properties and hydrating behaviour of Mg/Ti composites prepared by ball milling with benzene. <i>International Journal of Hydrogen Energy</i> , 2006 , 31, 2088-2096	6.7	32
869	The role of grain boundaries in the mechanism of plasma immersion hydrogenation of nanocrystalline magnesium films. 2006 , 252, 4202-4208		8
868	Kinetics of interaction of Mg-based mechanically activated alloys with hydrogen. 2006 , 102, 421-431		35
867	Thermal stability of amorphous alloys $\text{Mg}_{65}\text{Cu}_{25}\text{Y}_{10}$, $\text{Mg}_{63}\text{Ni}_{30}\text{Y}_7$ after electrochemical hydrogen absorption. 2006 , 45, 196-201		1
866	An investigation of the effect of Ti, Pd and Zr on the dehydriding kinetics of MgH_2 . 2006 , 41, 6403-6408		15

865	Structural and optical properties of $Mg_xAl_{1-x}Hy$ gradient thin films: a combinatorial approach. 2006 , 84, 77-85		25
864	Effect of oxygen on the hydrogenation properties of magnesium films. 2006 , 600, 1363-1368		27
863	Using MgO to improve the (de)hydriding properties of magnesium. 2006 , 41, 1118-1126		109
862	Tailoring Hydrogen Storage Materials Towards Application. 2006 , 8, 377-385		181
861	Hydrogen storage properties of Mg-based composites prepared by reaction ball milling. 2006 , 18, 11275-11290		
860	Role of Grain Boundaries in the Mechanism of Plasma Hydrogenation of Nanocrystalline MgAl Films. 2006 ,		1
859	Advantages of high surface area niobium oxide catalysts on MgH_2 sorption properties. 2006 , 927, 1		
858	Nanocrystalline Intermetallic Mg_2Ni Produced in a Batch Scale Mill. 2006 , 509, 141-146		
857	Preliminary investigation on the catalytic mechanism of TiF_3 additive in MgH_2/TiF_3 H-storage system. 2007 , 22, 1779-1786		12
856	Reaction with Hydrogen of Micro and Nano Composites Based on Mg. 2007 , 555, 335-342		2
855	Evolution of Crystal Orientation in Obliquely Deposited Magnesium Nanostructures for Hydrogen Storage Applications. 2007 , 1042, 1		2
854	Development of SEM Metallography for the Study of the Mg- MgH_2 Phase Transformation. 2007 , 1042, 1		1
853	Magnesium Hydride: From the Laboratory to the Tank. 2007 , 62, 907-914		5
852	In situ pressure and temperature monitoring during the conversion of Mg into MgH_2 by high-pressure reactive ball milling. <i>Journal of Alloys and Compounds</i> , 2007 , 427, 204-208	5-7	83
851	Hydrogen storage properties of $V_{30}Ti_{10}Cr_{60}Fe$ alloys. <i>Journal of Alloys and Compounds</i> , 2007 , 427, 110-114	5-7	18
850	Constitutional properties of the $La_{10}Ti_{10}Mg$ system at 400 °C. <i>Journal of Alloys and Compounds</i> , 2007 , 427, 134-141	5-7	35
849	Synthesis and hydrogen desorption properties of nanocomposite magnesium hydride with sodium borohydride ($MgH_2 + NaBH_4$). <i>Journal of Alloys and Compounds</i> , 2007 , 427, 291-299	5-7	44
848	Improving hydrogen sorption kinetics of MgH_2 by mechanical milling with TiF_3 . <i>Journal of Alloys and Compounds</i> , 2007 , 432, L1-L4	5-7	56

847	The effect of equal channel angular pressing on hydrogen storage properties of a eutectic Mg ₉₂ Ni alloy. <i>Journal of Alloys and Compounds</i> , 2007 , 436, 99-106	5-7	81
846	Synthesis of nanocrystalline MgH ₂ powder by gas-phase condensation and in situ hydridation: TEM, XPS and XRD study. <i>Journal of Alloys and Compounds</i> , 2007 , 434-435, 721-724	5-7	25
845	An X-ray investigation of hydrogenated Mg ₉₀ Al magnesium alloy. <i>Journal of Alloys and Compounds</i> , 2007 , 441, 278-283	5-7	8
844	The electrochemistry and modelling of hydrogen storage materials. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 648-654	5-7	6
843	Nuclear magnetic resonance studies of ball-milled hydrides. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 489-494	5-7	11
842	Hydrogen absorption kinetics of the catalyzed MgH ₂ by niobium oxide. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 67-71	5-7	48
841	H-sorption behaviour of mechanically activated Mg ₉₂ Ni powders. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 173-177	5-7	14
840	Hydrogen uptake in Mg:C thin films. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 530-533	5-7	11
839	Limits of the Mg ₉₂ Al phase range by ball-milling. 2007 , 15, 1432-1437		44
838	Mechano-chemical activation synthesis (MCAS) of nanocrystalline magnesium alanate hydride [Mg(AlH ₄) ₂] and its hydrogen desorption properties. <i>Journal of Alloys and Compounds</i> , 2007 , 439, 302-317	5-7	31
837	Magnesium nanowires: enhanced kinetics for hydrogen absorption and desorption. 2007 , 129, 6710-1		246
836	Mg ₉₂ Ni based materials for electrochemical hydrogen storage. 2007 , 22, 1640-1649		44
835	Combinatorial synthesis and hydrogenation of Mg/Al libraries prepared by electron beam physical vapor deposition. 2007 , 9, 230-6		28
834	Nanotechnology's Implications for Select Systems of Renewable Energy. 2007 , 4, 483-503		9
833	Metallic and carbon nanotube-catalyzed coupling of hydrogenation in magnesium. 2007 , 129, 15650-4		114
832	The Preparation of Carbon-Supported Magnesium Nanoparticles using Melt Infiltration. 2007 , 19, 6052-6057		168
831	Hydrogen storage using polymer-supported organometallic dihydrogen complexes: a mechanistic study. 2007 , 2965-7		18
830	Hydrogen and Hydrogen-Storage Materials. 2007 , 417-437		

829	Experimental and Theoretical Characterization of the 3D-Dopants Bias on the H Desorption of Mg Hydrides. 2007 , 555, 349-354		6
828	Selected nanotechnologies for renewable energy applications. <i>International Journal of Energy Research</i> , 2007 , 31, 619-636	4.5	136
827	Size effects on the hydrogen storage properties of nanostructured metal hydrides: A review. <i>International Journal of Energy Research</i> , 2007 , 31, 637-663	4.5	474
826	Hydrogenation properties of catalyzed and non-catalyzed magnesium films. 2007 , 601, 1862-1869		21
825	Hydrogen storage properties of the Mg/Fe system. 2007 , 389, 189-192		22
824	Hydrogen storage in magnesium-based hydrides and hydride composites. <i>Scripta Materialia</i> , 2007 , 56, 841-846	5.6	388
823	Metal hydride compositions on the basis of magnesium as materials for hydrogen accumulation. 2007 , 77, 712-720		16
822	Improved Hydrogen Storage of LiBH ₄ Catalyzed Magnesium. 2007 , 111, 12495-12498		55
821	Application of Mg ₉₀ wt%MnNi ₅ (x=100) nanostructured composites in a hydrogen storage device. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 2390-2399	6.7	27
820	Hydrogen storage properties of the Mg ₉₀ Ti ₁₀ system prepared by high-energy/high-pressure reactive milling. 2008 , 180, 491-497		74
819	In situ X-ray diffraction under H ₂ of the pseudo-AB ₂ compounds: YNi _{3.5} Al _{0.5} Mg. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 2053-2058	6.7	14
818	Investigation of the features of hydrogen synthesis by water decomposition on micro-and macrostructured silicon powders. 2008 , 81, 617-621		0
817	Advances in the application of nanotechnology in enabling a hydrogen economy. 2008 , 43, 5395-5429		171
816	Hydrogen sorption characteristics of the composites 90 wt.% Mg (MgH ₂) ₁₀ wt.% V _{0.855} Ti _{0.095} Fe _{0.05} . 2008 , 43, 5336-5341		11
815	Magnesium-based materials for hydrogen storage: Recent advances and future perspectives. 2008 , 53, 2421-2431		32
814	Recent progress in hydrogen storage. 2008 , 11, 36-43		422
813	Effect of ball milling on hydrogen storage of Mg ₃ La alloy. 2008 , 26, 303-306		26
812	Enhanced hydrogen absorption kinetics for hydrogen storage using Mg flakes as compared to conventional spherical powders. 2008 , 183, 693-700		9

811	Cubic MgH ₂ stabilized by alloying with transition metals: A density functional theory study. 2008 , 56, 2948-2954		37
810	Kinetic- and thermodynamic-based improvements of lithium borohydride incorporated into activated carbon. 2008 , 56, 6257-6263		124
809	Changes of hydrogen storage properties of MgH ₂ induced by heavy ion irradiation. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 1876-1879	6.7	29
808	Microchip power compensated calorimetry applied to metal hydride characterization. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 2729-2737	6.7	5
807	Effect of La/Ni ratio on hydrogen storage properties of Mg ₃ Ni ₃ La system prepared by hydriding combustion synthesis followed by mechanical milling. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 2970-2974	6.7	45
806	Reactivity and hydrogen storage performances of magnesium-nickel-copper ternary mixtures prepared by reactive mechanical grinding. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 4593-4606	6.7	6
805	Impact of nanostructuring on the enthalpy of formation of metal hydrides. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 4122-4131	6.7	97
804	Controlled mechanically activated hydrogen sorption. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 5606-5610	6.7	8
803	Hydrogen spillover in the context of hydrogen storage using solid-state materials. 2008 , 1, 338		116
802	Hydrogen diffusion and effect of grain size on hydrogenation kinetics in magnesium hydrides. 2008 , 23, 336-340		66
801	Nanoengineering-Enabled Solid-State Hydrogen Uptake and Release in the LiBH ₄ Plus MgH ₂ System. 2008 , 112, 18232-18243		56
800	Structural phase stability studies on MBeH ₃ (M = Li, Na, K, Rb, Cs) from density functional calculations. 2008 , 47, 508-14		18
799	Hydrogen Motion in Magnesium Hydride by NMR. 2008 , 112, 19784-19790		64
798	Nuclear magnetic resonance studies of hydrogen motion in nanostructured Laves-phase hydrides ZrCr ₂ H(x) and TaV ₂ H(x). 2008 , 20, 275239		4
797	Hydrogen Technology. <i>Green Energy and Technology</i> , 2008 ,	0.6	33
796	SEM and TEM characterization of magnesium hydride catalyzed with Ni nano-particle or Nb ₂ O ₅ . <i>Journal of Alloys and Compounds</i> , 2008 , 450, 395-399	5.7	70
795	Hydride stability and hydrogen desorption characteristics in melt-spun and nanocrystallized Mg ₃ Ni ₃ La alloy. <i>Journal of Alloys and Compounds</i> , 2008 , 450, 432-439	5.7	14
794	Hydrogen sorption kinetics of MgH ₂ catalyzed with NbF ₅ . <i>Journal of Alloys and Compounds</i> , 2008 , 453, 138-142	5.7	73

793	High surface area niobium oxides as catalysts for improved hydrogen sorption properties of ball milled MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2008 , 460, 507-512	5-7	56
792	Effect of LaNi ₅ and additional catalysts on hydrogen storage properties of Mg. <i>Journal of Alloys and Compounds</i> , 2008 , 460, 607-613	5-7	32
791	Mechano-chemical activation synthesis (MCAS) of disordered Mg(BH ₄) ₂ using NaBH ₄ . <i>Journal of Alloys and Compounds</i> , 2008 , 462, 201-208	5-7	30
790	Effect of aluminum content on mechanical properties of hydrogenated Mg ₂ Al magnesium alloys. <i>Journal of Alloys and Compounds</i> , 2008 , 463, 475-479	5-7	15
789	Influence of particle size on electrochemical and gas-phase hydrogen storage in nanocrystalline Mg. <i>Journal of Alloys and Compounds</i> , 2008 , 463, 539-545	5-7	16
788	Influence of Ti, Mn, Fe, and Ni addition upon thermal stability and decomposition temperature of the MgH ₂ phase of alloys synthesized by reactive mechanical alloying. <i>Journal of Alloys and Compounds</i> , 2008 , 464, 212-218	5-7	38
787	Hydrogen storage in magnesium-metal mixtures: Reversibility, kinetic aspects and phase analysis. <i>Journal of Alloys and Compounds</i> , 2008 , 465, 396-405	5-7	33
786	Hydrogen dissociation and diffusion on Ni- and Ti-doped Mg(0001) surfaces. 2008 , 128, 094703		56
785	Collection and storage of hydrogen micro- and nanopowders of silicon. 2008 ,		
784	Mechanical alloying and electrochemical hydrogen storage of Mg-based systems. 2008 , 23, 2179-2187		41
783	Magnesium hydride for hydrogen storage. 2008 , 357-380		4
782	Theoretical investigations on low energy surfaces and nanowires of MgH(2). 2008 , 19, 275704		37
781	The Pd catalyst effect on low temperature hydrogen desorption from hydrided ultrathin Mg nanoblades. 2008 , 19, 465706		30
780	Strong Fano resonance of oxygen-hydrogen bonds on oblique angle deposited Mg nanoblades. 2008 , 92, 183112		2
779	Role of catalysts in dehydrogenation of MgH ₂ nanoclusters. 2008 , 105, 8227-31		79
778	Characterisation of complex hydrides synthesised or modified by ball milling. <i>International Journal of Materials Research</i> , 2008 , 99, 553-556	0.5	1
777	Destabilization of the Mg-H system through elastic constraints. 2009 , 102, 226102		139
776	Atomic hydrogen adsorption and incipient hydrogenation of the Mg(0001) surface: a density-functional theory study. 2009 , 131, 034706		16

775	Synthesis and thermodynamic evaluation of intermetallic Mg-Ni/Mg-Cu nanoscale powders. 2009 , 24, 2503-2510		3
774	Nanomaterials for Hydrogen Storage Produced by Ball Milling. 2009 , 48, 11-25		7
773	The structural characterization and H ₂ sorption properties of carbon-supported Mg(1-x)Ni _x nanocrystallites. 2009 , 20, 204019		50
772	High temperature metal hydrides as heat storage materials for solar and related applications. 2009 , 10, 325-44		154
771	Predicting New Materials for Hydrogen Storage Application. 2009 , 2, 2296-2318		7
770	Enhanced Hydrogen Storage Properties of Magnesium Nanotrees with Nanoleaves. 2009 , 1216, 1		0
769	Reactive Sputtering of Magnesium Hydride Thin Films for Photovoltaic Applications. 2009 , 1210, 1		
768	Mechanochemical synthesis of a Mg-Li-Al-H complex hydride. 2009 , 24, 2880-2885		7
767	Novel Ultrathin Mg Nanoblades for Hydrogen Storage. 2009 , 1216, 1		
766	Reversible hydrogen storage in metal-doped Mg ₂ NiBH ₄ composites. <i>Scripta Materialia</i> , 2009 , 60, 667-670	5.6	25
765	Hydrogen desorption mechanism of 2NaBH ₄ +MgH ₂ composite prepared by high-energy ball milling. <i>Scripta Materialia</i> , 2009 , 60, 1129-1132	5.6	61
764	Density functional and dynamics study of the dissociative adsorption of hydrogen on Mg (0 0 0 1) surface. 2009 , 603, 304-310		25
763	In situ synchrotron X-ray diffraction studies of hydrogen desorption and absorption properties of Mg and Mg ₂ MnNi after reactive ball milling in hydrogen. 2009 , 57, 3989-4000		86
762	Hydride formation in ball-milled and cryomilled MgBe powder mixtures. 2009 , 158, 19-25		30
761	Mechanochemical methods for the synthesis of new magnesium-based composite materials for hydrogen accumulation. 2009 , 45, 248-257		4
760	Solid-state hydrogen storage: Storage capacity, thermodynamics, and kinetics. 2009 , 61, 45-51		10
759	Study on hydrogen atom adsorption and diffusion properties on Mg (0001) surface. 2009 , 52, 1897-1905		10
758	Scaling up effects of Mg hydride in a temperature and pressure-controlled hydrogen storage device. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 4602-4610	6.7	25

757	Improvement of MgAl alloys for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 1937-1943	6.7	64
756	Hysteresis in interaction of nanocrystalline magnesium with hydrogen. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 1916-1921	6.7	15
755	Hydrogen storage properties of Mg ₈₀ wt.% LaNi ₅ composite prepared by hydriding combustion synthesis followed by mechanical milling (HCS + MM). <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 1405-1410	6.7	33
754	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> , 2009 , 34, 1922-1930	6.7	269
753	Structural evolution of Pd-capped Mg thin films under H ₂ absorption and desorption cycles. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 4817-4826	6.7	35
752	Indications of the formation of an oversaturated solid solution during hydrogenation of MgNi based nanocomposite produced by mechanical alloying. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 5429-5438	6.7	15
751	The influence of different additives on the solid-state reaction of magnesium hydride (MgH ₂) with Si. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 7692-7699	6.7	17
750	Effect of hydride nucleation rate on the hydrogen capacity of Mg. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 6343-6349	6.7	62
749	Chemical vapor synthesis of MgTi nanopowder mixture as a hydrogen storage material. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 7700-7706	6.7	25
748	Processing analysis of the ternary LiNH ₂ -MgH ₂ -LiBH ₄ system for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 8086-8093	6.7	33
747	Formation and hydrogen storage properties of in situ prepared MgCu alloy nanoparticles by arc discharge. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 8127-8134	6.7	18
746	Absorption of D(g) atoms in ultrathin Mg films and Pd-catalyzed decomposition of MgD ₂ . 2009 , 15, 253-256		
745	Anelasticity in nanostructured MgH ₂ /Mg: Correlation with hydrogen sorption kinetics. 2009 , 521-522, 151-154		1
744	Hydrogen storage properties of Mg _x Fe (x: 2, 3 and 15) compounds produced by reactive ball milling. 2009 , 186, 185-193		40
743	Superior hydrogen absorption and desorption behavior of Mg thin films. 2009 , 186, 515-520		33
742	Catalyzed hydrogen spillover for hydrogen storage. 2009 , 131, 4224-6		70
741	Fabrication and hydrogen sorption behaviour of nanoparticulate MgH ₂ incorporated in a porous carbon host. 2009 , 20, 204005		86
740	Scanning electron microscopy of partially de-hydrogenated MgH ₂ powders. 2009 , 17, 596-602		25

739	XRD studies of electrochemically hydrided/dehydrided thin films of the alloy AZ31 and AZ31 with Ti. <i>Journal of Alloys and Compounds</i> , 2009 , 467, 524-527	5-7	6
738	Effect of the milling energy on the production and thermal stability of amorphous Mg ₅₀ Ni ₅₀ . <i>Journal of Alloys and Compounds</i> , 2009 , 471, 435-441	5-7	12
737	Hydrogen storage in Pd capped thermally grown Mg films: Studies by nuclear resonance reaction analysis. <i>Journal of Alloys and Compounds</i> , 2009 , 476, 500-506	5-7	22
736	TEM studies of nanostructure in melt-spun Mg ₈₀ Ni ₂₀ alloy manifesting enhanced hydrogen desorbing kinetics. <i>Journal of Alloys and Compounds</i> , 2009 , 478, 308-316	5-7	32
735	Amorphous phase formation in intermetallic Mg ₂ Ni alloy synthesized by ethanol wet milling. <i>Journal of Alloys and Compounds</i> , 2009 , 479, 330-333	5-7	10
734	The influence of HS-AlF ₃ on the decomposition reaction of MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2009 , 479, 82-86	5-7	2
733	Effects of ball-milling on the hydrogen sorption properties of LaNi ₅ . <i>Journal of Alloys and Compounds</i> , 2009 , 480, 912-916	5-7	22
732	Dehydrogenation characteristics of Ti- and Ni/Ti-catalyzed Mg hydrides. <i>Journal of Alloys and Compounds</i> , 2009 , 481, 152-155	5-7	46
731	Formation of nanostructured LaMg ₂ Ni by rapid quenching and intensive milling and its hydrogen reactivity. <i>Journal of Alloys and Compounds</i> , 2009 , 481, 144-151	5-7	11
730	Characterization of MgH ₂ formation by low-energy ball-milling of Mg and Mg + C (graphite) mixtures under H ₂ atmosphere. <i>Journal of Alloys and Compounds</i> , 2009 , 481, 673-680	5-7	40
729	Comparative studies of the influence of different nano-sized metal oxides on the hydrogen sorption properties of magnesium hydride. <i>Journal of Alloys and Compounds</i> , 2009 , 486, 697-701	5-7	81
728	The dependence of the hydrogen desorption temperature of MgH ₂ on its structural and morphological characteristics. <i>Journal of Alloys and Compounds</i> , 2009 , 487, 724-729	5-7	13
727	Simple Metal and Intermetallic Hydrides. 2009 , 83-193		
726	Confinement of MgH ₂ nanoclusters within nanoporous aerogel scaffold materials. 2009 , 3, 3521-8		206
725	The synthesis and hydrogen storage properties of a MgH ₂ incorporated carbon aerogel scaffold. 2009 , 20, 204027		117
724	Thermal Stability And Hydrogen Sorption Properties Of The MgH ₂ Hydride Derived By The Reactive Milling Of The Mg + 10 Wt% Ti Mixture. 2008 , 473-483		2
723	Hydrogen storage properties of nanosized MgH ₂ -0.1TiH ₂ prepared by ultrahigh-energy-high-pressure milling. 2009 , 131, 15843-52		219
722	Nanomaterials for Solid State Hydrogen Storage. 2009 ,		122

721	The formation mechanism and structural characterization of the mixed transition-metal complex hydride $Mg_2(FeH_6)_{0.5}(CoH_5)_{0.5}$ obtained by reactive milling. 2009 , 20, 204010	30
720	HYSTERESIS IN INTERACTION OF NANOCRYSTALLINE MAGNESIUM WITH HYDROGEN. 2008 , 579-586	
719	Hydrogen storage materials: present scenarios and future directions. 2009 , 105, 21	80
718	Hydrogen absorption and desorption in metallic glass and nanocrystalline $Zr_{52.5}Cu_{17.9}Ni_{14.6}Ti_5Al_{10}$ alloy. 2009 , 19, 377-382	5
717	Hydrating behavior of Mg-based nano-layers prepared by pulsed laser deposition. 2009 , 146, 012018	1
716	Morphology and Preferred Orientation of Pulse Electrodeposited Magnesium. 2010 , 157, E45	13
715	Effect of mechanical milling on the mobility of hydrogen in the $ZrTi_2$ -H system stabilized by hydrogen: NMR data. 2010 , 110, 241-249	2
714	Influence of 3d metal atoms on the geometry, electronic structure, and stability of a $Mg_{13}H_{26}$ cluster. 2010 , 52, 1992-1998	12
713	Nanosizing and nanoconfinement: new strategies towards meeting hydrogen storage goals. 2010 , 3, 1332-48	283
712	Advanced materials for energy storage. 2010 , 22, E28-62	3687
711	Nanoparticles and 3D Supported Nanomaterials. 2010 , 279-340	1
710	Metal Hydrides. 2010 , 81-116	8
709	Tailoring Reaction Enthalpies of Hydrides. 2010 , 187-214	9
708	Solid-state Materials and Methods for Hydrogen Storage: A Critical Review. 2010 , 33, 213-226	212
707	Amelioration of the hydriding and dehydriding kinetics of Mg by reactive mechanical grinding with Ni and Fe_2O_3 purchased and prepared by spray conversion. 2010 , 16, 666-672	
706	Hydrogen desorption properties of Mg thin films at room temperature. 2010 , 195, 1190-1194	19
705	Local structure of ball-milled $LaNi_5$ hydrogen storage material by Ni K-edge EXAFS. 2010 , 183, 1550-1554	10
704	Large atomic disorder in nanostructured $LaNi_5$ alloys: A La L3-edge extended X-ray absorption fine structure study. 2010 , 71, 1069-1072	11

703	Microstructure and hydrogen storage characteristics of nanocrystalline Mg+xwt% LaMg ₂ Ni (x=0.0) composites. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 2786-2790	6.7	23
702	Hydrogen sorption kinetics of MgH ₂ catalyzed with titanium compounds. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 3046-3050	6.7	70
701	Comparative study on the controlled hydriding combustion synthesis and the microwave synthesis to prepare Mg ₂ Ni from micro-particles. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 3129-3135	6.7	18
700	Hydrogen storage in Mg: A most promising material. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 5133-5144	6.7	784
699	Hydrogen storage in binary and ternary Mg-based alloys: A comprehensive experimental study. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 2091-2103	6.7	80
698	Catalytic effect of halide additives ball milled with magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 1706-1712	6.7	151
697	Effects of NbF ₅ addition on the hydrogen storage properties of LiAlH ₄ . <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 2361-2367	6.7	95
696	The role of spark plasma sintering on the improvement of hydrogen storage properties of Mg-based composites. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 8080-8087	6.7	6
695	Pellets of MgH ₂ -based composites as practical material for solid state hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 3565-3571	6.7	28
694	A study of stability of MgH ₂ in Mg ₈ at%Al alloy powder. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 3555-3564	6.7	36
693	The role of differently distributed vanadium nanocatalyst in the hydrogen storage of magnesium nanostructures. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 4162-4170	6.7	20
692	Enhanced hydrogen sorption properties of Ni and Co-catalyzed MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 4569-4575	6.7	127
691	Hydrogen storage properties of spark generated palladium nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 5479-5489	6.7	55
690	Hydrogen storage properties of Mg _{1-x} Ni _x system hydrogen storage materials prepared by hydriding combustion synthesis and mechanical milling. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 6350-6355	6.7	28
689	Structural characterization and electrochemical hydrogen storage properties of Mg ₂ Ni _{1-x} Mn _x (x=0, 0.125, 0.25, 0.375) alloys prepared by mechanical alloying. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 6794-6803	6.7	33
688	Hydrogen-storage property characterization of Mg _{1-5wt%} Ni _{5wt%} Fe ₂ O ₃ prepared by reactive mechanical grinding. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 13055-13061	6.7	9
687	Effects of CNTs on the hydrogen storage properties of MgH ₂ and MgH ₂ -BCC composite. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 7821-7826	6.7	76
686	Effects of nano additives on hydrogen storage behavior of the multinary complex hydride LiBH ₄ /LiNH ₂ /MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 9646-9652	6.7	23

685	Hydrogen storage in magnesium based-composite hydride through hydriding combustion synthesis. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 9641-9645	6.7	21
684	First-principles studies of the structures and properties of Al- and Ag-substituted Mg ₂ Ni alloys and their hydrides. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 10349-10358	6.7	15
683	LaMg ₁₁ with a giant unit cell synthesized by hydrogen metallurgy: Crystal structure and hydrogenation behavior. 2010 , 58, 2510-2519		94
682	Fabrication and Characterization of Magnesium Nanoparticle by Gas Evaporation Method. 2010 , 8, 246-249		5
681	. 2010 ,		106
680	First-principles modelling of magnesium titanium hydrides. 2010 , 22, 074208		10
679	An in situ neutron diffraction measurement of the pressure-temperature evolution of a MgD ₂ :TiD ₂ mixture. 2010 , 30, 643-652		8
678	Moving interface hydride formation in multilayered metal thin films. 2010 , 108, 013521		18
677	Structural investigation and thermodynamical properties of alkali calcium trihydrides. 2010 , 132, 114504		9
676	Nanostructures of Mg _{0.65} Ti _{0.35} D _x studied with x-ray diffraction, neutron diffraction, and magic-angle-spinning H ₂ NMR spectroscopy. 2010 , 81,		26
675	Size distributions of nanoscopic holes in Ti/h-BN and Ti/B nanocomposites. 2010 , 107, 043509		2
674	Effects of carbon on hydrogen storage performances of hydrides. 2010 , 20, 5390		97
673	Hydrogen in magnesium: new perspectives toward functional stores. 2010 , 3, 526		306
672	First Principles Study on Hydrogen Desorption from a Metal (=Al, Ti, Mn, Ni) Doped MgH ₂ (110) Surface. 2010 , 114, 11328-11334		62
671	Molecular beam-thermal hydrogen desorption from palladium. 2010 , 81, 043103		4
670	Catalytic effects of TiF ₃ on hydrogen spillover on Pt/carbon for hydrogen storage. 2010 , 26, 15394-8		29
669	Reversible Hydrogen Storage in Destabilized LiAlH ₄ -MgH ₂ -TiBH ₄ Ternary-Hydride System Doped with TiF ₃ . 2010 , 114, 11643-11649		45
668	Nuclear Magnetic Resonance Study of Ball-Milled TiH ₂ with C, B, and BN Additives. 2010 , 114, 646-651		3

667	Size-dependent hydrogen sorption in ultrasmall Pd clusters embedded in a mesoporous carbon template. 2010 , 132, 7720-9		83
666	Magnetic Measurements as a Sensitive Tool for Studying Dehydrogenation Processes in Hydrogen Storage Materials. 2010 , 114, 16818-16822		2
665	Mg ₁₅ Li ₁₀ Ti mixtures for hydrogen storage: A kinetic study. 2010 , 18, 203-211		57
664	Synthesis of Mg ₁₅ Fe materials for hydrogen storage applying ball milling procedures. <i>Journal of Alloys and Compounds</i> , 2010 , 495, 655-658	5-7	2
663	The catalytic effect of titanium oxide based additives on the dehydrogenation and hydrogenation of milled MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2010 , 492, 251-258	5-7	56
662	Evolution of microstructure in MgH ₂ powder particles during high energy ball milling and hydrogen cycling. <i>Journal of Alloys and Compounds</i> , 2010 , 492, 515-520	5-7	8
661	An investigation on the reaction pathway between LiAlH ₄ and LiNH ₂ via gaseous ammonia. <i>Journal of Alloys and Compounds</i> , 2010 , 495, 17-22	5-7	5
660	Electronic structure and stability of new FCC magnesium hydrides Mg ₇ MH ₁₆ and Mg ₆ MH ₁₆ (M' = Ti, V, Nb): An ab initio study. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 2025-2032	6-7	47
659	Hydriding and dehydriding properties of HCS Li-Mg-N-H systems. 2010 ,		
658	Altered thermodynamic and kinetic properties of MgH(2) infiltrated in microporous scaffold. 2010 , 46, 8353-5		159
657	LiBH ₄ in Carbon Aerogel Nanoscaffolds: An NMR Study of Atomic Motions. 2010 , 114, 4008-4014		79
656	Destabilisation of the Li-N-H hydrogen storage system with elemental Si. 2011 , 13, 17683-8		8
655	Promoted dehydrogenation in ammine lithium borohydride supported by carbon nanotubes. 2011 , 40, 9679-89		8
654	The impact of carbon materials on the hydrogen storage properties of light metal hydrides. 2011 , 21, 2417-2427		141
653	Thin film metal hydrides for hydrogen storage applications. 2011 , 21, 4021-4026		37
652	Effect of different additives on the hydrogen storage properties of the MgH ₂ -LiAlH ₄ destabilized system. 2011 , 1, 408		49
651	Synergetic effects of hydrogenated Mg ₃ La and TiCl ₃ on the dehydrogenation of LiBH ₄ . 2011 , 21, 9179		44
650	In situ Raman cell for high pressure and temperature studies of metal and complex hydrides. 2011 , 83, 3199-204		6

649	Enhanced Desorption and Absorption Properties of Eutectic LiBH ₄ /Ca(BH ₄) ₂ Infiltrated into Mesoporous Carbon. 2011 , 115, 20027-20035		43
648	Growth Mechanism for the Controlled Synthesis of MgH ₂ /Mg Crystals via a Vapor-Solid Process. 2011 , 11, 4166-4174		24
647	A Review of Recent Advances on the Effects of Microstructural Refinement and Nano-Catalytic Additives on the Hydrogen Storage Properties of Metal and Complex Hydrides. 2011 , 4, 1-25		53
646	Hydrogen Adsorption and Storage. 2011 , 157-245		3
645	Green Energy. 2011 ,		14
644	Solid-state hydrogen storage for mobile applications: Quo Vadis?. 2011 , 4, 2495		91
643	Hydride formation in Mg-based systems processed by reactive milling. 2011 , 151, 315-26; discussion 385-97		8
642	Size-dependent hydrogen storage properties of Mg nanocrystals prepared from solution. 2011 , 133, 10679-81		204
641	Novel Mg ₂ Al ₃ A ₃ (A=Li, Na) hydrides synthesized by a high pressure technique and their hydrogen storage properties. <i>Journal of Alloys and Compounds</i> , 2011 , 509, 1211-1216	5:7	13
640	Correlation between hydrogen migration and microstructure in cast Mg alloys. <i>Journal of Alloys and Compounds</i> , 2011 , 509, S621-S624	5:7	2
639	Stability enhancement by particle size reduction in AlH ₃ . <i>Journal of Alloys and Compounds</i> , 2011 , 509, S662-S666	5:7	9
638	Deuterium absorption in Mg ₇₀ Al ₃₀ thin films with bilayer catalysts: A comparative neutron reflectometry study. <i>Journal of Alloys and Compounds</i> , 2011 , 509, 5466-5471	5:7	5
637	Size Dependence of Air Oxidation for Mg Nanoparticle. 2011 , 9, 315-321		6
636	Decomposition of Magnesium Hydride Fiber Observed Using TEM and In-Situ AFM. 2011 , 52, 481-485		2
635	Effects of Hydrogen on the Mechanical Properties of Pure Magnesium. 2011 , 52, 1123-1126		11
634	Hydrogen storage: Keeping out the oxygen. 2011 , 10, 265-6		31
633	Improved hydrogen storage properties of Mg ₂ Ni nanoparticles prepared by hydrogen plasma-metal reaction. 2011 , 196, 9599-9604		56
632	Effect of amorphous Mg ₅₀ Ni ₅₀ on hydriding and dehydriding behavior of Mg ₂ Ni alloy. <i>Materials Characterization</i> , 2011 , 62, 442-450	3:9	9

631	Comparison of hydrogen storage properties of MgNi from different preparation methods. 2011 , 127, 405-408		10
630	Improved activation and hydrogen storage properties of a Mg ₈₅ Ni ₁₅ melt-spun alloy via surface treatment with NH ₄ ⁺ solution. 2011 , 130, 937-942		4
629	Hydrogen storage measurements in novel Mg-based nanostructured alloys produced via rapid solidification and devitrification. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 10787-10796	6.7	75
628	Hydrogen storage properties and microstructure of melt-spun Mg ₉₀ Ni ₈ RE ₂ (RE = Y, Nd, Gd). <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 10808-10815	6.7	81
627	Hydrogen storage properties of nanostructured MgH ₂ /TiH ₂ composite prepared by ball milling under high hydrogen pressure. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 10828-10833	6.7	75
626	Improvement of hydriding and dehydriding rates of Mg via addition of transition elements Ni, Fe, and Ti. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 12932-12938	6.7	14
625	Intrinsic mechanisms on enhancement of hydrogen desorption from MgH ₂ by (001) surface doping. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 12939-12949	6.7	45
624	Improvement in the hydrogen storage properties of Mg by mechanical grinding with Ni, Fe and V under H ₂ atmosphere. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 13587-13594	6.7	39
623	Hydrogen absorption kinetics of magnesium fiber prepared by vapor deposition. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 14488-14495	6.7	18
622	Hydrogenation of nanostructured alloys and composites based on magnesium. 2011 , 60, 1848-1857		5
621	Accumulation of hydrogen by silicon powders in HF inductive discharge plasma. 2011 , 56, 1520-1523		1
620	ECAP processing and mechanical milling of Mg and MgTi powders: a comparative study. 2011 , 46, 5559-5567		7
619	Structural and H ₂ sorption properties of MgH ₂ /10 wt%ZrCrM (M = Cu, Ni) nano-composites. 2011 , 13, 5719-5726		5
618	Effect of activated carbons derived from different precursors on the hydrogen sorption properties of magnesium. 2011 , 92, 1963-1969		11
617	Kinetic rate-limiting steps in dehydrogenation of LiNH ₂ and LiMgNH ₂ systems [Effects of elemental Si and Al. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 8335-8343	6.7	26
616	Microstructural evolution during hydrogen sorption cycling of MgBeTi nanolayered composites. 2011 , 59, 2083-2095		34
615	Theoretical study of the interaction between LiNH ₂ and HMgH. 2011 , 111, 675-681		6
614	The role of palladium in a hydrogen economy. 2011 , 14, 282-289		312

613	Catalytic De/Hydrogenation in Mg by Co-Doped Ni and VOx on Active Carbon: Extremely Fast Kinetics at Low Temperatures and High Hydrogen Capacity. 2011 , 1, 387-393		48
612	Infrared imaging tool for screening catalyst effect on hydrogen storing thin film libraries. 2011 , 159, 144-149		3
611	Low-temperature hydrogen desorption and the structural properties of spark discharge generated Mg nanoparticles. 2011 , 59, 3070-3080		43
610	Synthesis and hydrogen storage properties of ultrafine Mg ₂ N particles. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 3515-3520	6.7	59
609	Synthesis of magnesium nanoparticles with superior hydrogen storage properties by acetylene plasma metal reaction. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 4967-4975	6.7	36
608	The effect of transition metals on hydrogen migration and catalysis in cast Mg ₂ Ni alloys. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 4984-4992	6.7	54
607	An experimental investigation on the poor hydrogen sorption properties of nano-structured LaNi ₅ prepared by ball-milling. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 7914-7919	6.7	12
606	Effect of rapid solidification on hydrogen solubility in Mg-rich Mg ₂ Ni alloys. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 5388-5399	6.7	27
605	Enhanced oxidation resistance of magnesium nanorods grown by glancing angle deposition. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 5998-6004	6.7	11
604	Enhanced hydrogen storage performance of LiAlH ₄ /MgH ₂ /TiF ₃ composite. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 5369-5374	6.7	51
603	High pressure DSC study of hydrogen sorption in MgH ₂ /graphite mixtures: Effects of sintering and oxidation. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 5411-5417	6.7	9
602	Hydrogen sorption performance of MgH ₂ doped with mesoporous nickel- and cobalt-based oxides. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 5400-5410	6.7	74
601	Enhanced hydrogen storage properties of LiBH ₄ /MgH ₂ composite by the catalytic effect of MoCl ₃ . <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 7128-7135	6.7	27
600	Characterization of graphite catalytic effect in reactively ball-milled MgH ₂ and Mg ₂ composites. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 9051-9061	6.7	35
599	Deposition of magnesium hydride thin films using radio frequency reactive sputtering. 2011 , 519, 5949-5954		10
598	A neutron scattering study of hydrogen dynamics in coarse-grained and nanostructured ZrCr ₂ 2011 , 23, 065402		4
597	Fractal disperse hydrogen sorption kinetics in spark discharge generated Mg/NbOx and Mg/Pd nanocomposites. 2011 , 99, 194103		9
596	Nanocrystalline metals and alloys prepared by mechanical attrition. 2011 , 59-84		1

595	Porous Mg formation upon dehydrogenation of MgH ₂ thin films. 2011 , 109, 093501	25
594	Nanostructured Ti-catalyzed MgH ₂ for hydrogen storage. 2011 , 22, 235401	53
593	Superior MgH ₂ Kinetics with MgO Addition: A Tribological Effect. 2012 , 2, 330-343	41
592	Preparation and Properties of Magnesium Based Hydrogen Storage Alloy Mg ₂ NiH ₄ in Chemical Engineering. 2012 , 577, 61-64	0
591	Synthesis and Hydrogen Storage Properties of Magnesium Nanoparticles with Core/Shell Structure. 2012 , 736, 120-126	1
590	Hydrogen uptake in Mg thin film alloys. 2012 ,	
589	Microstructural and Kinetic Evolution of Fe Doped MgH ₂ during H ₂ Cycling. 2012 , 2, 400-411	25
588	Enhancement of Hydrogen Storage Behavior of Complex Hydrides via Bimetallic Nanocatalysts Doping. 2012 , 2, 434-446	4
587	Enhanced reversibility of H ₂ sorption in nanoconfined complex metal hydrides by alkali metal addition. 2012 , 22, 13209	29
586	Periodic-DFT of a Disordered System: Mg ₂ (FeH ₆) _{0.5} (CoH ₅) _{0.5} . 2012 , 116, 25206-25212	3
585	Microscopic Study of TiF ₃ as Hydrogen Storage Catalyst for MgH ₂ . 2012 , 116, 26027-26035	47
584	First-Principles Study of Biaxial Strain Effect on Hydrogen Adsorbed Mg (0001) Surface. 2012 , 116, 14943-14949	21
583	MgBe Thin Films: A Phase-Separated Structure with Fast Kinetics of Hydrogenation. 2012 , 116, 21277-21284	23
582	Extended Solubility Limits and Nanograin Refinement in Ti/Zr Fluoride-Catalyzed MgH ₂ . 2012 , 116, 2001-2012	38
581	Influence of Crystal Structure of Bulk Phase on the Stability of Nanoscale Phases: Investigation on MgH ₂ Derived Nanostructures. 2012 , 116, 18965-18972	20
580	Theoretical study of hydrogen dissociation and diffusion on Nb and Ni co-doped Mg(0001): A synergistic effect. 2012 , 606, L45-L49	21
579	Nanomaterials for renewable energy production and storage. 2012 , 41, 7909-37	729
578	Mg ₃ Cd: A model alloy for studying the destabilization of magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 10724-10732	6.7 30

577	Hydrogen storage properties of cold rolled magnesium hydrides with oxides catalysts. <i>Journal of Alloys and Compounds</i> , 2012 , 512, 33-38	5-7	24
576	Synthesis and enhanced hydrogen desorption kinetics of magnesium hydride using hydriding chemical vapor synthesis. <i>Journal of Alloys and Compounds</i> , 2012 , 529, 102-107	5-7	6
575	Room temperature gaseous hydrogen storage properties of Mg-based metallic glasses with ultrahigh Mg contents. 2012 , 358, 1387-1390		24
574	Synthesis and hydrogen storage properties of Mg _{1-x} Al _x nanoparticles. 2012 , 219, 100-105		21
573	Synthesis of Mg@Mg ₁₇ Al ₁₂ ultrafine particles with superior hydrogen storage properties by hydrogen plasma-metal reaction. 2012 , 22, 19831		49
572	Magnesium Nanocrystals Embedded in a Metal-Organic Framework: Hybrid Hydrogen Storage with Synergistic Effect on Physi- and Chemisorption. 2012 , 124, 9952-9955		30
571	Magnesium nanocrystals embedded in a metal-organic framework: hybrid hydrogen storage with synergistic effect on physi- and chemisorption. 2012 , 51, 9814-7		113
570	Preparation and hydrogen storage properties of ultrafine pure Mg and Mg ₃ Ni particles. 2012 , 22, 1849-1854		22
569	Catalytically enhanced dehydrogenation of MgH ₂ by activated carbon supported Pd ₂ O ₃ (x=2.38) nanocatalyst. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 13393-13399	6-7	15
568	MgH ₂ -Nb ₂ O ₅ investigated by in situ synchrotron X-ray diffraction. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 13409-13416	6-7	46
567	Mg _{2-x} Ti _x Ni (x=0, 0.5) alloys prepared by mechanical alloying for electrochemical hydrogen storage: Experiments and first-principles calculations. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 14248-14256	6-7	21
566	Hydrogen storage properties of 2MgBe mixtures processed by hot extrusion: Influence of the extrusion ratio. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 15196-15203	6-7	5
565	MgH ₂ synthesis during reactive mechanical alloying studied by in-situ pressure monitoring. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 16844-16851	6-7	10
564	In-situ Hydrogen Sorption 2D-ACAR Facility for the Study of Metal Hydrides for Hydrogen Storage. 2012 , 35, 22-27		0
563	Enhanced dehydrogenation of nanoscale MgH ₂ confined by ordered mesoporous silica. 2012 , 136, 146-150		23
562	High capacity hydrogen storage: Basic aspects, new developments and milestones. 2012 , 1, 566-589		167
561	MgH ₂ in Carbon Scaffolds: A Combined Experimental and Theoretical Investigation. 2012 , 116, 21139-21147		23
560	Remarkable hydrogen storage properties for nanocrystalline MgH ₂ synthesised by the hydrogenolysis of Grignard reagents. 2012 , 14, 11386-97		27

559	Thermodynamic Properties, Hysteresis Behavior and Stress-Strain Analysis of MgH ₂ Thin Films, Studied over a Wide Temperature Range. 2012 , 2, 710-729		17
558	Hydrogen Desorption from Mg Hydride: An Ab Initio Study. 2012 , 2, 845-860		9
557	Mg ₂ FeH ₆ -based nanocomposites with high capacity of hydrogen storage processed by reactive milling. 2012 , 15, 229-235		6
556	Hydrogen storage properties of a Ni, Fe and Ti-added Mg-based alloy. 2012 , 18, 279-286		17
555	Phase transition and hydrogen storage properties of melt-spun Mg ₃ LaNi _{0.1} alloy. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 1145-1150	6.7	35
554	Hydrogen absorption and optical properties of Pd/Mg thin films prepared by DC magnetron sputtering. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3772-3778	6.7	29
553	Hydriding behavior of Mg-50 wt% ZrCrFe composite Prepared by high energy ball milling. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3665-3670	6.7	6
552	Fast hydriding Mg _{0.7} Fe _{0.1} Ni alloy compositions for high capacity hydrogen storage application. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3671-3676	6.7	16
551	Effect of V, Nb, Ti and graphite additions on the hydrogen desorption temperature of magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 1912-1918	6.7	60
550	Stability of transition metals on Mg(0001) surfaces and their effects on hydrogen adsorption. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 309-317	6.7	43
549	Effect of carbon allotropes on the structure and hydrogen sorption during reactive ball-milling of Mg _{0.5} powder mixtures. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 4179-4187	6.7	39
548	Effects of the preparative parameters of hydriding combustion synthesis on the properties of Mg _{0.5} as hydrogen storage material. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 4238-4245	6.7	11
547	Hydrogenation/dehydrogenation in MgH ₂ -activated carbon composites prepared by ball milling. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 7579-7585	6.7	43
546	Assessment of changes in desorption mechanism of MgH ₂ after ion bombardment induced destabilization. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 6727-6732	6.7	15
545	Porous MgH ₂ /C composite with fast hydrogen storage kinetics. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 8370-8378	6.7	26
544	Structural, electronic and thermodynamic properties of Al- and Si-doped Mg and MgH ₂ : Density functional and hybrid density functional calculations. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 9112-9122	6.7	24
543	Hydrogen storage in rapidly solidified and crystallized Mg _{0.5} -(Y,La)Pd alloys. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 9716-9721	6.7	19
542	Effect of group IV elements on the thermodynamic property of NaH + Al. <i>Renewable Energy</i> , 2012 , 43, 172-178	8.1	1

541	Ca7Ge-type hydride Mg6VNaxHy (0 ≤ x ≤ 1): High pressure synthesis, synchrotron X-ray analysis and hydrogen storage properties. 2012 , 210, 158-162		2
540	Preparation of Magnesium-based Hydrogen Storage Materials and Their Effect on the Thermal Decomposition of Ammonium Perchlorate. 2013 , 38, 629-633		12
539	Membrane catalysis in the dehydrogenation and hydrogen production processes. 2013 , 82, 352-368		28
538	Electronic and elastic properties of Mg7TiH16 hydrogen storage material. <i>Computational Materials Science</i> , 2013 , 78, 110-115	3.2	6
537	Hydrogen storage: beyond conventional methods. 2013 , 49, 8735-51		355
536	Hydrogen Storage Materials. 2013 , 377-405		4
535	In operando study of TiVCr additive in MgH2 composites. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 11937-11945	6.7	12
534	Hydrogen storage properties of MgTMa (TM = Ti, Fe, Ni) ternary composite powders prepared through arc plasma method. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 8852-8862	6.7	42
533	Effects of SnO2 on hydrogen desorption of MgH2. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 4664-4669	6.7	23
532	Polymer-stable magnesium nanocomposites prepared by laser ablation for efficient hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 11530-11535	6.7	68
531	Preface. 2013 , 56, 399-401		
530	Effect of titanium based complex catalyst and carbon nanotubes on hydrogen storage performance of magnesium. 2013 , 56, 451-458		3
529	Binary and Complex Main-Group Hydrides for Hydrogen Storage. 2013 , 1251-1275		
528	Supercritical fluid chemical deposition of Pd nanoparticles on magnesium-candium alloy for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2013 , 574, 6-12	5.7	11
527	Hydrogen Storage Properties of Graphite-Modified Mg-Ni-Ce Composites Prepared by Mechanical Milling Followed by Microwave Sintering. 2013 , 44, 58-67		5
526	Structural Properties and Reversible Deuterium Loading of MgD2TiD2 Nanocomposites. 2013 , 117, 18851-18862		39
525	MgH2 and LiH metal hydrides crystals as novel hydrogen storage material: Electronic structure and optical properties. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 11946-11954	6.7	25
524	An investigation of hydrogen storage in a magnesium-based alloy processed by equal-channel angular pressing. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 8306-8312	6.7	81

523	Mechanical milling of Mg, Ni and Y powder mixture and investigating the effects of produced nanostructured MgNi ₄ Y on hydrogen desorption properties of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 6687-6693	6.7	20
522	Hydrogenation behavior of high-energy ball milled amorphous Mg ₂ Ni catalyzed by multi-walled carbon nanotubes. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 16168-16176	6.7	14
521	Sorption behavior of the MgH ₂ /Mg ₂ FeH ₆ hydride storage system synthesized by mechanical milling followed by sintering. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 14618-14630	6.7	31
520	McPhy-Energy's proposal for solid state hydrogen storage materials and systems. <i>Journal of Alloys and Compounds</i> , 2013 , 580, S343-S348	5.7	42
519	Improved nonaqueous synthesis of TiO ₂ for dye-sensitized solar cells. 2013 , 7, 8981-9		48
518	Catalysis and hydrolysis properties of perovskite hydride NaMgH ₃ . <i>Journal of Alloys and Compounds</i> , 2013 , 580, S197-S201	5.7	14
517	Improved hydrogen storage properties of MgH ₂ by ball milling with AlH ₃ : preparations, de/rehydrating properties, and reaction mechanisms. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 12527	13	59
516	Anode properties of magnesium hydride catalyzed with niobium oxide for an all solid-state lithium-ion battery. 2013 , 49, 7174-6		40
515	Methods to stabilize and destabilize ammonium borohydride. 2013 , 42, 680-7		18
514	First principle investigations of the physical properties of hydrogen-rich MgH ₂ . 2013 , 88, 065704		13
513	Mechanically alloyed nanocomposites. 2013 , 58, 383-502		519
512	MgH ₂ as dopant for improved activation of commercial Mg ingot. <i>Journal of Alloys and Compounds</i> , 2013 , 575, 364-369	5.7	18
511	Nanoconfined 2LiBH ₄ /MgH ₂ /TiCl ₃ in carbon aerogel scaffold for reversible hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 3275-3282	6.7	45
510	Dispersion of nickel on the microstructure in magnesium based alloys for hydrogen storage. <i>Journal of Magnesium and Alloys</i> , 2013 , 1, 292-296	8.8	8
509	Hydrogen absorption study of high-energy reactive ball milled Mg composites with palladium additives. <i>Journal of Alloys and Compounds</i> , 2013 , 580, S144-S148	5.7	12
508	Dual-tuning effect of In on the thermodynamic and kinetic properties of Mg ₂ Ni dehydrogenation. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 8881-8887	6.7	170
507	Magnesium growth in magnesium deuteride thin films during deuterium desorption. <i>Journal of Alloys and Compounds</i> , 2013 , 580, S29-S32	5.7	2
506	A study of Parylene coated Pd/Mg nanoblades for reversible hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 5019-5029	6.7	5

505	Hydrogenation-induced microstructure evolution in as cast and severely deformed Mg-10 wt.% Ni alloy. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 12103-12114	6.7	15
504	Synergetic catalytic effect of MWCNTs and TiF ₃ on hydrogenation properties of nanocrystalline Mg-10wt%Ni alloys. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 12904-12911	6.7	17
503	Preparation of LaMgNi _{4-x} Cox alloys and hydrogen storage properties. 2013 , 23, 2307-2311		17
502	Facile synthesis of nanosized sodium magnesium hydride, NaMgH ₃ . 2013 , 23, 343-350		12
501	Hydrogen absorption of catalyzed magnesium below room temperature. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 13728-13733	6.7	80
500	Application of nanotechnologies in the energy sector: A brief and short review. 2013 , 7, 6-18		16
499	Hydrogen storage properties and thermal stability of amorphous Mg ₇₀ (RE ₂₅ Ni ₇₅) ₃₀ alloys. <i>Journal of Alloys and Compounds</i> , 2013 , 563, 1-5	5.7	12
498	MgH ₂ dehydrogenation properties improved by MnFe ₂ O ₄ nanoparticles. 2013 , 239, 201-206		58
497	Synthesis of a VNi Alloy with Low Temperature Hydriding Characteristics for Hydrogen Energy Storage. 2013 , 10, 640-646		3
496	Kinetic Enhancement in the Sorption Properties by Forming Mg _x wt % ZrCrCu Composites. 2013 , 117, 11953-11959		8
495	A low-cost and high performance ball-milled Si-based negative electrode for high-energy Li-ion batteries. 2013 , 6, 2145		246
494	Kinetic Monte Carlo and density functional study of hydrogen diffusion in magnesium hydride MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 8350-8356	6.7	27
493	A Round Robin Test exercise on hydrogen absorption/desorption properties of a magnesium hydride based material. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 6704-6717	6.7	38
492	Study on hydrogen storage properties of Mg nanoparticles confined in carbon aerogels. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 5302-5308	6.7	57
491	Study on the hydrogen storage properties of core-shell structured MgRE (RE = Nd, Gd, Er) nano-composites synthesized through arc plasma method. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 2337-2346	6.7	93
490	Microstructure and morphology changes in MgH ₂ /expanded natural graphite pellets upon hydrogen cycling. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 1918-1924	6.7	19
489	Role of particle size, grain size, microstrain and lattice distortion in improved dehydrogenation properties of the ball-milled Mg(AlH ₄) ₂ . <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 1460-1468	6.7	27
488	An investigation on the hydrogen storage properties and reaction mechanism of the destabilized MgH ₂ /La ₃ AlH ₆ (4:1) system. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 1478-1483	6.7	42

487	Magnesium-carbon hydrogen storage hybrid materials produced by reactive ball milling in hydrogen. 2013 , 57, 146-160		94
486	Hydrogen storage properties of nano-structured 0.65MgH ₂ /0.35ScH ₂ . <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 153-161	6.7	15
485	Phase equilibria in the Mg-Ti-Ni system at 500 °C and hydrogenation properties of selected alloys. 2013 , 32, 167-175		12
484	First-Principles Studies on Hydrogen Desorption Mechanism of MgH ₂ n (n = 3, 4). 2013 , 117, 8099-8104		6
483	Strain and doping effects on the energetics of hydrogen desorption from the MgH ₂ (001) surface. 2013 , 101, 27006		13
482	First-Principles Study on a Potential Hydrogen Storage Medium of Mg/TiAl Sandwiched Films. 2013 , 117, 25374-25380		8
481	Characteristic Features of the Sorption/Desorption of Hydrogen by Mg-M-Ni (M = Al, Mn, Ti) Ternary Alloys. 2013 , 49, 159-169		10
480	Determination of kinetic parameters and hydrogen desorption characteristics of MgH ₂ -10 wt% (9Ni-1Mg) nano-composite. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 11910-11919	6.7	60
479	Preparation of Mg ₂ FeH ₆ Nanoparticles for Hydrogen Storage Properties. 2013 , 2013, 1-7		7
478	Thermodynamic Tuning of Mg-Based Hydrogen Storage Alloys: A Review. 2013 , 6, 4654-4674		123
477	Improvement in the hydrogen desorption from MgH ₂ upon transition metals doping: A hybrid density functional calculations. 2013 , 3, 102117		9
476	Mechanochemical synthesis of sustainable energy materials. 2013 , 2, 229-234		
475	Strain effect on the adsorption, diffusion, and molecular dissociation of hydrogen on Mg (0001) surface. 2013 , 139, 224702		19
474	WITHDRAWN: Carbon nanomaterials as catalysts for hydrogen uptake and release by nanocrystalline MgH ₂ . 2013 ,		1
473	Changeover of the Thermodynamic Behavior for Hydrogen Storage in Rh with Increasing Nanoparticle Size. 2013 , 42, 55-56		10
472	NEXAFS Study of Air Oxidation for Mg Nanoparticle Thin Film. 2013 , 417, 012065		1
471	Catalytic Effect of Niobium Oxide on Hydrogen Absorption and Desorption Process for Magnesium. 2013 , 77, 636-640		1
470	Thermodynamic modeling of hydrogen storage capacity in Mg-Na alloys. 2014 , 2014, 190320		9

469	Research progress in Mg-based hydrogen storage alloys. <i>Rare Metals</i> , 2014 , 33, 499-510	5.5	34
468	Magnesium Composites with Additions of Oxygen-Stabilized $Zr_4Fe_2O_{0.5}$ for Effective Hydrogen Accumulation. 2014 , 53, 335-342		2
467	Modeling and stabilities of Mg/MgH ₂ interfaces: A first-principles investigation. 2014 , 4, 077101		11
466	Tuning the Thermodynamic Properties of MgH ₂ at the Nanoscale via a Catalyst or Destabilizing Element Coating Strategy. 2014 , 118, 27781-27792		41
465	Nanomaterials for Hydrogen Storage. 2014 , 587-589, 216-219		2
464	The Influence of Morphology on the Hydrogen Storage Properties of Magnesium Based Materials Processed by Cold Rolling. 2014 , 922, 400-405		2
463	Ab initio study of effects of Al and Y co-doping on destabilizing of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 9254-9261	6.7	18
462	Characterization and modification of waste magnesium chip utilized as an Mg-rich intermetallic composite. 2014 , 17, 158-164		7
461	Nanostructured bulk Mg + MgO composite synthesized through arc plasma evaporation and high pressure torsion for H-storage application. 2014 , 183, 1-5		25
460	Correlation between hydrogen storage properties and textures induced in magnesium through ECAP and cold rolling. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 3810-3821	6.7	49
459	Ni-doping effect of Mg(0001) surface to use it as a hydrogen storage material. <i>Journal of Alloys and Compounds</i> , 2014 , 609, 93-99	5.7	10
458	Reversible hydrogen storage in vapour deposited Mg-5 at.% Pd powder composites. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 4421-4426	6.7	8
457	Activation energy in the thermal decomposition of MgH ₂ powders by coupled TGMS measurements. 2014 , 116, 865-874		2
456	Influence of Co and Pd on the formation of nanostructured LaMg ₂ Ni and its hydrogen reactivity. <i>Journal of Alloys and Compounds</i> , 2014 , 582, 647-658	5.7	22
455	Hydrogen Desorption Properties of the MgH ₂ /AlH ₃ Composites. 2014 , 118, 37-45		60
454	Size and stress dependent hydrogen desorption in metastable Mg hydride films. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 2597-2607	6.7	29
453	Mg-based nanocomposites with improved hydrogen storage performances. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 14262-14274	6.7	36
452	Electrochemical reactivity of magnesium hydride toward lithium: New synthesis route of nano-particles suitable for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 5852-5857	6.7	19

451	Controlling the ignition and flammability of magnesium for aerospace applications. 2014 , 86, 1-16		156
450	Cathodic hydrogen charging of zinc. 2014 , 79, 16-20		9
449	Synthesis and hydrogen storage properties of Mg ₁₀ La ₃ Ni nanoparticles. 2014 , 246, 277-282		48
448	Hydrogen sorption properties of nanostructured bulk Mg ₂ Ni intermetallic compound. <i>Journal of Alloys and Compounds</i> , 2014 , 586, S400-S404	5-7	21
447	Influence of different amounts of FeCl ₃ on decomposition and hydrogen sorption kinetics of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 2567-2574	6-7	65
446	Effect of carbon from anthracite coal on decomposition kinetics of magnesium hydride. <i>Journal of Alloys and Compounds</i> , 2014 , 592, 231-237	5-7	12
445	Study of the formation and thermal stability of Mg ₂ Co obtained by mechanical alloying and heat treatment. <i>Journal of Alloys and Compounds</i> , 2014 , 590, 469-473	5-7	9
444	Hydrogen storage characteristics of magnesium impregnated on the porous channels of activated charcoal scaffold. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 20045-20053	6-7	33
443	The Influence of Magnesium Hydride on the Thermal Decomposition Properties of Nitrocellulose. 2014 , 32, S13-S21		10
442	A co-precipitated Mg ₃ Ni nano-composite with high capacity and rapid hydrogen absorption kinetics at room temperature. 2014 , 4, 42764-42771		26
441	Enhanced Hydrogen Storage Properties of Mg ₃ Ni Nanocomposite at Moderate Temperatures. 2014 , 118, 22419-22425		19
440	Size effects and hydrogen storage properties of Mg nanoparticles synthesised by an electroless reduction method. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 9718	13	73
439	Characterization of Gas-Solid Reactions using In Situ Powder X-ray Diffraction. 2014 , 640, 3029-3043		28
438	Synthesis, characterization, and hydrogen uptake studies of magnesium nanoparticles by solution reduction method. 2014 , 60, 556-561		7
437	Hydrogen Storage Properties of a Mg ₃ Ni Nanocomposite Coprecipitated from Solution. 2014 , 118, 18401-18411		56
436	The role of morphology and severe plastic deformation on the hydrogen storage properties of magnesium. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 12778-12783	6-7	21
435	Hydrogen storage systems from waste Mg alloys. 2014 , 270, 554-563		60
434	Improved Hydrogen Storage Properties of MgH ₂ Co-Doped with FeCl ₃ and Carbon Nanotubes. 2014 , 118, 18878-18883		72

433	Microstructures and Hydrogen Desorption Properties of the MgH ₂ /AlH ₃ Composite with NbF ₅ Addition. 2014 , 118, 18908-18916		22
432	Aluminum integral foams with tailored density profile by adapted blowing agents. 2014 , 115, 651-660		1
431	Phase Stabilities in the Mg ₂ Si System Tuned by Mechanochemistry. 2014 , 118, 21889-21895		9
430	Development of Ultrafine-Grained Metals by Equal-Channel Angular Pressing. 2014 , 187-209		6
429	First-principles study of hydrogen dissociation and diffusion on transition metal-doped Mg(0 0 0 1) surfaces. 2014 , 305, 40-45		20
428	Improved hydrogen storage properties of Mg-based nanocomposite by addition of LaNi ₅ nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 18273-18279	6.7	34
427	Comparative investigation on the hydrogenation/dehydrogenation characteristics and hydrogen storage properties of Mg ₃ Ag and Mg ₃ Y. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 13616-13621	6.7	38
426	Effects of the compaction pressure and of the cycling process on kinetics and microstructure of compacted MgH ₂ -based mixtures. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 9924-9930	6.7	24
425	Hydrogen storage properties of MgH ₂ processed by cold forging. <i>Journal of Alloys and Compounds</i> , 2014 , 615, S719-S724	5.7	16
424	Enhanced hydrogen storage properties of 4MgH ₂ + LiAlH ₄ composite system by doping with Fe ₂ O ₃ nanopowder. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 7834-7841	6.7	35
423	Electrode properties and the dehydrogenation process of amorphous Mg ₂ Ni ₁₀ alloys. 2014 , 249, 35-41		16
422	Hydrogen storage properties of pure Mg after the combined processes of ECAP and cold-rolling. <i>Journal of Alloys and Compounds</i> , 2014 , 586, S405-S408	5.7	36
421	Enhanced hydrogen storage properties of magnesium by the synergic catalytic effect of TiH _{1.971} and TiH _{1.5} nanoparticles at room temperature. 2014 , 267, 69-77		49
420	Hydrogen storage and release: Kinetic and thermodynamic studies of MgH ₂ activated by transition metal nanoparticles. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 11633-11641	6.7	59
419	Hydrogen storage properties of 2MgBe after the combined processes of hot extrusion and cold rolling. <i>Journal of Alloys and Compounds</i> , 2014 , 586, S409-S412	5.7	12
418	Hydrogen Absorption and Desorption Behavior of Magnesium Hydride: Incubation Period and Reaction Mechanism. 2014 , 55, 1161-1167		12
417	An investigation of the microstructure and hydrogenation/dehydrogenation properties of ball-milled CeMg ₁₂ alloys with Ni powders. <i>International Journal of Materials Research</i> , 2014 , 105, 39-43	0.5	0
416	Microstructure and improved hydrogen storage properties of Mg based alloy powders prepared by modified milling method. 2014 , 57, 45-53		8

4 ¹⁵	Reversible hydrogen storage and phase transformation with altered desorption pressure in Mg ₉₀ In ₅ Cd ₅ ternary alloy. <i>Journal of Alloys and Compounds</i> , 2015 , 645, S103-S106	5-7	12
4 ¹⁴	Mechanochemical Synthesis of Nanostructured Materials for Energy Conversion and Storage Devices. 2015 , 717-733		
4 ¹³	In-Situ XAS for Niobium Oxide Catalyst on Hydrogen Absorption and Desorption of Magnesium. 2015 , 79, 107-111		2
4 ¹²	Metal-Organic Frameworks and Porous Coordination Polymers: Properties and Applications. 2015 , 65, 9-22		10
4 ¹¹	Constitutive modeling for the hot deformation behavior of Mg _{0.06} Zn _{0.58} Zr _{0.07} Y alloy. 2015 , 46, 835-843		4
4 ¹⁰	Effect of Cold Rolling on the Hydrogen Desorption Behavior of Binary Metal Hydride Powders under Microwave Irradiation. 2015 , 5, 2021-2033		6
4 ⁰⁹	DFT calculations of hydrogen diffusion and phase transformations in magnesium. <i>Journal of Alloys and Compounds</i> , 2015 , 644, 371-377	5-7	22
4 ⁰⁸	Effects of initial pressure on the decomposition of LiBH ₄ and MgH ₂ mixture. 2015 , 17, 1239-1246		5
4 ⁰⁷	Hydrogen storage: Materials, methods and perspectives. <i>Renewable and Sustainable Energy Reviews</i> , 2015 , 50, 457-469	16.2	416
4 ⁰⁶	Anode properties of Al ₂ O ₃ -added MgH ₂ for all-solid-state lithium-ion batteries. 2015 , 19, 3639-3644		15
4 ⁰⁵	Synergistic effects of TiH ₂ and Pd on hydrogen desorption performances of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 16338-16346	6.7	34
4 ⁰⁴	Effect of ball-milling duration and dehydrogenation on the morphology, microstructure and catalyst dispersion in Ni-catalyzed MgH ₂ hydrogen storage materials. 2015 , 86, 55-68		110
4 ⁰³	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> , 2015 , 40, 5006-5012	6.7	5
4 ⁰²	Synthesis and Hydrogen Desorption Properties of Mg _{1.7} Al _{0.15} Ti _{0.15} Ni-CNT Nanocomposite Powder. 2015 , 24, 1100-1106		2
4 ⁰¹	Preparation and hydrogen sorption properties of a Ni decorated Mg based Mg@Ni nano-composite. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 1820-1828	6.7	52
4 ⁰⁰	Combination of nanosizing and interfacial effect: Future perspective for designing Mg-based nanomaterials for hydrogen storage. <i>Renewable and Sustainable Energy Reviews</i> , 2015 , 44, 289-303	16.2	128
3 ⁹⁹	Remarkable hydrogen desorption properties and mechanisms of the Mg ₂ FeH ₆ @MgH ₂ core-shell nanostructure. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 5517-5524	13	49
3 ⁹⁸	Effect of ZrCrCo alloy on hydrogen storage properties of Mg. <i>Journal of Alloys and Compounds</i> , 2015 , 645, S518-S523	5-7	23

397	Hydrogen diffusion in metal-hydrogen systems via NMR and DFT. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 17038-17050	6.7	14
396	Modelling and proper evaluation of volumetric kinetics of hydrogen desorption by metal hydrides. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 10111-10122	6.7	5
395	Reaction kinetic behaviour with relation to crystallite/grain size dependency in the MgSi system. 2015 , 95, 244-253		23
394	The effect of Al on thermal stability and kinetics of decomposition of MgH ₂ prepared by mechanochemical reaction at different conditions. 2015 , 162, 408-416		10
393	First principles study on stability and hydrogen adsorption properties of Mg/Ti interface. 2015 , 17, 16594-600		7
392	MgH ₂ /Fe ₂ H _x nanocomposites for improved hydrogen storage characteristics of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 11506-11513	6.7	44
391	Study of the hydrogenation/dehydrogenation process in the MgNiAl system. <i>Journal of Alloys and Compounds</i> , 2015 , 645, S239-S241	5.7	14
390	Pure hydrogen-generating doped sodium hydrazinidoborane. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 7475-7482	6.7	10
389	Metallic Ni nanocatalyst in situ formed from a metal-organic-framework by mechanochemical reaction for hydrogen storage in magnesium. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 8294-8299	13	49
388	Hydrides for submarine applications: Overview and identification of optimal alloys for air independent propulsion maximization. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 11879-11889	6.7	26
387	Investigation of properties of Mg(n) clusters and their hydrogen storage mechanism: a study based on DFT and a global minimum optimization method. 2015 , 119, 3636-43		27
386	Effects of single- and co-substitution of Ti on dehydrogenation of Mg ₂ NiH ₄ : A first-principles study. <i>Computational Materials Science</i> , 2015 , 103, 45-51	3.2	9
385	Stability of Catalyzed Magnesium Hydride Nanocrystalline During Hydrogen Cycling. Part II: Microstructure Evolution. 2015 , 119, 22272-22280		23
384	Hydrogen storage of binary nanoparticles composed of Mg and Pd. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 11895-11901	6.7	11
383	Development of a Mg-based hydrogen-storage material by addition of Ni and NbF ₅ via milling under hydrogen. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 11908-11916	6.7	25
382	Hydrogen storage properties of in-situ stabilised magnesium nanoparticles generated by electroless reduction with alkali metals. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 16948-16960	6.7	18
381	Contributions of multiple phenomena towards hydrogenation: A case of Mg. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 13518-13529	6.7	9
380	Nanometer-scale hydrogen 'portals' for the control of magnesium hydride formation. 2015 , 17, 28977-84		12

379	Magnesium as Novel Material for Active Plasmonics in the Visible Wavelength Range. 2015 , 15, 7949-55		131
378	Hydrogen storage in small size Mg _n Co clusters: A density functional study. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 12727-12735	6.7	29
377	Enhancement of the initial hydrogenation of Mg by ball milling with alkali metal amides MNH ₂ (M = Li or Na). 2015 , 44, 16694-7		10
376	The development of metal hydrides using as concentrating solar thermal storage materials. 2015 , 9, 317-331		17
375	Influence factors on the formation of magnesium nanowires prepared by physical vapor deposition. 2015 , 432, 78-82		5
374	Effect of Synthesized MgNi ₄ Y Catalyst on Hydrogen Desorption Properties of Milled MgH ₂ . 2015 , 2, 27-32		
373	Modelling and evaluation of hydrogen desorption kinetics controlled by surface reaction and bulk diffusion for magnesium hydride. 2015 , 5, 5363-5371		6
372	Evaluation of the metal-added Mg hydrogen storage material and comparison with the oxide-added Mg. 2015 , 21, 378-386		4
371	Hydrogen sorption characteristics of nanostructured Pd ₁₀ Rh processed by cryomilling. 2015 , 82, 41-50		9
370	A review of catalyst-enhanced magnesium hydride as a hydrogen storage material. 2015 , 84, 96-106		187
369	Realizing nano-confinement of magnesium for hydrogen storage using vapour transport deposition. <i>Rare Metals</i> , 2016 , 35, 401-407	5.5	17
368	Hydrogen From Water Electrolysis. 2016 , 315-343		9
367	Study on the synthesis and hydrogen storage properties of Mg ₂ CuH ₃ . <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 13152-13155	6.7	1
366	Energetic evaluation of hydrogen storage in metal hydrides. <i>International Journal of Energy Research</i> , 2016 , 40, 1820-1831	4.5	28
365	Formation of Internal MgH ₂ in Pure Mg and Mg-Al-Zn Alloys. 2016 , 80, 753-758		1
364	Preparation of an additive-free sample with a MgH ₂ phase by planetary ball milling of Mg with 10 wt% MgH ₂ . 2016 , 22, 1121-1128		3
363	Post-Hartree-Fock studies of the He/Mg(0001) interaction: Anti-corrugation, screening, and pairwise additivity. 2016 , 144, 244707		13
362	Magnesium hydride film formation using subatmospheric pressure H ₂ plasma at low temperature. 2016 , 34, 04J103		2

361	Two step mechanochemical synthesis of Nb doped MgO rock salt nanoparticles and its application for hydrogen storage in MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 11716-11722	6.7	14
360	Hydrogen storage properties of a destabilized MgH ₂ Sn system with TiF ₃ addition. <i>Journal of Alloys and Compounds</i> , 2016 , 678, 297-303	5.7	38
359	Magnesium hydride for energy storage applications: The kinetics of dehydrogenation under different working conditions. <i>Journal of Alloys and Compounds</i> , 2016 , 681, 571-579	5.7	19
358	Exploring adsorption and desorption characteristics of molecular hydrogen on neutral and charged Mg nanoclusters: A first principles study. 2016 , 469-470, 123-131		8
357	Experimental validation of the BurgioRojac model of planetary ball milling by the length control of multiwall carbon nanotubes. 2016 , 105, 615-621		4
356	Improved hydrogen storage properties of MgH ₂ catalyzed with K ₂ NiF ₆ . 2016 , 25, 832-839		50
355	Effect of trace Na additions on the hydrogen absorption kinetics of Mg ₂ Ni. 2016 , 31, 1316-1327		14
354	Study of adsorption and dissociation pathway of H ₂ molecule on Mg _n Rh (n = 1-10) clusters: A first principle investigation. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 20113-20121	6.7	40
353	A DFT study of hydrogen storage on surface (110) of Mg _{1-x} Al _x (0 ≤ x ≤ 0.1). <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 23388-23393	6.7	9
352	Crystal structure and hydrogen storage behaviors of Mg/MoS ₂ composites from ball milling. 2016 , 31, 773-778		3
351	Hydrogen Storage. 2016 , 567-638		
350	Constant rate thermal analysis of a dehydrogenation reaction. 2016 , 6, 81454-81460		3
349	Influence of Titanium and Iron Additives to Magnesium on Hydrogen-Sorption Properties, Thermal Stability, and Kinetics of Hydrogen Desorption from MgH ₂ Phase of Mechanical Alloy. 2016 , 55, 477-488		5
348	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> , 2016 , 41, 23092-23098	6.7	11
347	A microscopic level insight into Pt doped TiZn (001) surface for hydrogen energy storage usage. 2016 , 6, 73566-73575		
346	Hydrogen Storage of Pd/Mg composite Nanoparticles Fabricated by Gas Evaporation Method. 2016 , 14, 150-153		
345	Hydrogen storage in filed magnesium. <i>Journal of Alloys and Compounds</i> , 2016 , 687, 586-594	5.7	22
344	Stability and hydrogen adsorption properties of Mg/TiMn ₂ interface by first principles calculation. 2016 , 653, 22-26		9

343	Hydrogen storage and thermal transport properties of pelletized porous Mg-2 wt.% multiwall carbon nanotubes and Mg-2 wt.% graphite composites. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 14461-14474	6.7	35
342	Severely deformed ZK60 + 2.5% Mn alloy for hydrogen storage produced by two different processing routes. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 11284-11292	6.7	21
341	Controlling nanocrystallization and hydrogen storage property of Mg-based amorphous alloy via a gas-solid reaction. <i>Journal of Alloys and Compounds</i> , 2016 , 685, 272-277	5.7	37
340	Site preference and diffusion of hydrogen during hydrogenation of Mg: A first-principles study. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 3508-3516	6.7	12
339	Review of magnesium hydride-based materials: development and optimisation. 2016 , 122, 1		212
338	Mg-based compounds for hydrogen and energy storage. 2016 , 122, 1		121
337	Kinetics of hydrogen adsorption on MgH ₂ /CNT composite. 2016 , 77, 23-28		22
336	Facile preparation of MgH ₂ /nanocomposites under mild conditions and pathways to rapid dehydrogenation. 2016 , 18, 10492-8		34
335	First-principles investigation of the effects of Ni and Y co-doped on destabilized MgH ₂ . 2016 , 6, 23110-23116		14
334	Solid-state reactions and hydrogen storage in magnesium mixed with various elements by high-pressure torsion: experiments and first-principles calculations. 2016 , 6, 11665-11674		15
333	Delaminated MoS ₂ as a structural and functional modifier for MgH ₂ [Better hydrogen desorption kinetics through induced worm-like morphologies. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 3551-3560	6.7	5
332	Hydrogen storage and spillover kinetics in carbon nanotube-Mg composites. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 2814-2819	6.7	24
331	Catalytic effect of CeCl ₃ on the hydrogen storage properties of MgH ₂ . 2016 , 170, 77-82		59
330	Influence of micro-amount O ₂ or N ₂ on the hydrogenation/dehydrogenation kinetics of hydrogen-storage material MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 8057-8062	6.7	11
329	Hydrogen storage properties of a Mg-La-Fe-H nano-composite prepared through reactive ball milling. <i>Journal of Alloys and Compounds</i> , 2017 , 701, 208-214	5.7	31
328	Changes in microstructure, phases, and hydrogen storage characteristics of metal hydro-borate and nickel-added magnesium hydride with hydrogen absorption and release reactions. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 1018-1026	6.7	18
327	Effect on specific capacity and de-hydrogenation efficiency in doped-MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 327-339	6.7	5
326	Impact of initial catalyst form on the 3D structure and performance of ball-milled Ni-catalyzed MgH ₂ for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 5177-5187	6.7	14

325	Recent advances in additive-enhanced magnesium hydride for hydrogen storage. 2017 , 27, 41-49		113
324	The hydrogen storage properties of Mg-Li-Al composite system catalyzed by K ₂ ZrF ₆ . 2017 , 104, 214-220		15
323	Highly ameliorated gaseous and electrochemical hydrogen storage dynamics of nanocrystalline and amorphous LaMg ₁₂ -type alloys prepared by mechanical milling. 2017 , 24, 50-58		6
322	Experimental determination of the enthalpies of formation of the lithium silicides Li ₇ Si ₃ and Li ₁₂ Si ₇ based on hydrogen sorption measurements. <i>Journal of Alloys and Compounds</i> , 2017 , 704, 398-405	5.7	3
321	Significantly enhanced hydrogen desorption properties of Mg(AlH ₄) ₂ nanoparticles synthesized using solvent free strategy. 2017 , 27, 112-120		12
320	Aluminium doping composite metal-organic framework by alane nanoconfinement: Impact on the room temperature hydrogen uptake. 2017 , 243, 214-220		12
319	Can EMgH ₂ improve the hydrogen storage properties of magnesium?. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 8644-8652	13	37
318	Hydrogen storage properties of 2Mg-Fe mixtures processed by hot extrusion at different temperatures. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 11493-11500	6.7	6
317	Imaging the hydrogenation of Mg thin films. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 22411-22416	16	12
316	Hydrogen storage properties of core-shell structured Mg@TM (TM = Co, V) composites. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 15246-15255	6.7	32
315	First-principles study on hydrogen storage in Al-, Ca-, Mn-doped MgNi clusters. 2017 , 31, 1730002		
314	Hydrogen Storage Technologies for Future Energy Systems. 2017 , 8, 445-471		141
313	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. 2017 , 261, 10-16		1
312	Improvement on hydrogen storage thermodynamics and kinetics of the as-milled SmMg ₁₁ Ni alloy by adding MoS ₂ . <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 17157-17166	6.7	7
311	Synergic catalytic effect of Ti hydride and Nb nanoparticles for improving hydrogenation and dehydrogenation kinetics of Mg-based nanocomposite. 2017 , 27, 99-104		21
310	Recent advances in improving performances of the lightweight complex hydrides Li-Mg-N-H system. 2017 , 27, 21-33		45
309	The enhanced dehydrogenation performances of 17MgH ₂ -12Al composite with additive TiH ₂ . <i>Journal of Alloys and Compounds</i> , 2017 , 704, 769-775	5.7	13
308	Recent advances and remaining challenges of nanostructured materials for hydrogen storage applications. 2017 , 88, 1-48		366

307	Effect of mechanical activation on compactibility of metal hydride materials. <i>Journal of Alloys and Compounds</i> , 2017 , 707, 214-219	5.7	12
306	Hydriding kinetics of MgTiH ₂ fine dispersions obtained by mechanosynthesis. 2017 , 307, 145-152		4
305	Effect of trace Na additions on the hydriding kinetics of hypo-eutectic MgNi alloys. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 6851-6861	6.7	7
304	Processing of MgH ₂ by extensive cold rolling under protective atmosphere. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 2201-2208	6.7	11
303	The enhanced de/re-hydrogenation performance of 4MgH ₂ -NaAlH ₄ composite by doping with TiH ₂ . <i>Journal of Alloys and Compounds</i> , 2017 , 698, 1002-1008	5.7	23
302	Hydrogen sorption, kinetics, reversibility, and reaction mechanisms of MgH ₂ -xLiBH ₄ doped with activated carbon nanofibers for reversible hydrogen storage based laboratory powder and tank scales. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 24915-24926	6.7	6
301	Fabrication and mechanical properties of mesoporous silica nanoparticles reinforced magnesium matrix composite. <i>Journal of Alloys and Compounds</i> , 2017 , 728, 413-423	5.7	11
300	Dehydrogenation steps and factors controlling desorption kinetics of a Mg-Ce hydrogen storage alloy. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 21121-21130	6.7	17
299	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> , 2017 , 42, 21822-21831	6.7	13
298	Effect of graphite (GR) content on microstructure and hydrogen storage properties of nanocrystalline Mg ₂ Y ₃ Ni ₂ GR composites. <i>Journal of Alloys and Compounds</i> , 2017 , 726, 498-506	5.7	9
297	Catalytic effect of (Ti _{0.85} Zr _{0.15}) _{1.05} Mn _{1.2} Cr _{0.6} V _{0.1} Cu _{0.1} on hydrogen storage properties of ultrafine magnesium particles. 2017 , 7, 34538-34547		6
296	Evolution of catalyst coated atomised magnesium spheres [An alternative thermal storage medium for concentrated solar power applications. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 28453-28463	6.7	5
295	Effect of Cu on dehydrogenation and thermal stability of amorphous Mg-Ce-Ni-Cu alloys. 2017 , 27, 622-626		14
294	A review on onBoard challenges of magnesiumBased hydrogen storage materials for automobile applications. 2017 ,		4
293	Improving dehydrogenation properties of Mg/Nb composite films via tuning Nb distributions. <i>Rare Metals</i> , 2017 , 36, 574-580	5.5	9
292	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> , 2017 , 42, 2239-2247	6.7	37
291	Dehydrogenation Properties of Magnesium Hydride Loaded with Fe, Fe-C, and Fe-Mg Additives. 2017 , 18, 287-291		8
290	Hydrogen sorption improvement of MgH ₂ catalyzed by CeO ₂ nanopowder. <i>Journal of Alloys and Compounds</i> , 2017 , 695, 2532-2538	5.7	81

289	Dissociation and diffusion of hydrogen on defect-free and vacancy defective Mg (0001) surfaces: A density functional theory study. 2017 , 394, 371-377		22
288	Novel MAX-phase Ti ₃ AlC ₂ catalyst for improving the reversible hydrogen storage properties of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 4244-4251	6.7	30
287	Theoretical study of hydrogen desorption on Mg 50 Ni 50 using statistical physics treatment. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 8733-8743	6.7	7
286	Hydrogen storage: Recent improvements and industrial perspectives. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 7254-7262	6.7	288
285	Effect on de-hydrogenation efficiency on doping of rare earth elements (Pr, Nd, Gd, Dy) in MgH ₂ □ A density functional theory study. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 1012-1017	6.7	13
284	Effect of impurity N ₂ concentration on the hydriding kinetics of Na-doped MgNi alloys. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 366-375	6.7	1
283	Magnesium-Gold Alloy Formation by Underpotential Deposition of Magnesium onto Gold from Nitrate Melts. 2017 , 7, 95		4
282	The Effect of Cold Rolling on the Hydrogen Susceptibility of 5083 Aluminum Alloy. 2017 , 7, 451		9
281	Increase in the Surface Catalytic Ability by Addition of Palladium in C14 Metal Hydride Alloy. 2017 , 3, 26		5
280	Obtenci3 del compuesto Mg ₂ Ni _{0.5} Co _{0.5} mediante aleado mec3nico y estudio de su comportamiento frente al proceso de hidruraci3. 2017 , 84, 240-246		1
279	Thin Film Hydrogen Storages. 2017 , 1-27		
278	Improvements in Mechanical Properties of Spring Steel Through Surface Tempering and Hardening Assisted by SMAT. 2018 , 71, 1543-1552		3
277	Hydrogen production, storage, transportation and key challenges with applications: A review. 2018 , 165, 602-627		477
276	Improved reversible dehydrogenation properties of MgH ₂ by the synergetic effects of graphene oxide-based porous carbon and TiCl ₃ . <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 7440-7446	6.7	23
275	Over saturated metallic-Mg-ions diffused hollow carbon nano-spheres/Pt for ultrahigh-performance hydrogen storage. 2018 , 221, 139-142		3
274	High-pressure torsion for new hydrogen storage materials. 2018 , 19, 185-193		32
273	Hydrogen storage properties of Y-Mg-Cu-H nanocomposite obtained by hydrogen-induced decomposition of YMg ₄ Cu intermetallic. <i>Journal of Alloys and Compounds</i> , 2018 , 751, 176-182	5.7	18
272	Improving hydrogen storage performance of AZ31 Mg alloy by equal channel angular pressing and additives. <i>Journal of Alloys and Compounds</i> , 2018 , 743, 437-447	5.7	19

271	Synergistic Effect of LiBH ₄ and LiAlH ₄ Additives on Improved Hydrogen Storage Properties of Unexpected High Capacity Magnesium Hydride. 2018 , 122, 2528-2538		22
270	Study of Semimagnetic Mn-Doped WO ₃ Nanoparticles Synthesised by Precipitation Method: Hydrogenation Creates a Promising DMS. 2018 , 31, 2039-2046		3
269	Hydrolysis Batteries: Generating Electrical Energy during Hydrogen Absorption. 2018 , 57, 2219-2223		9
268	Waste Mg-Al based alloys for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 16738-16748	6.7	14
267	Improved kinetics of nanoparticle-decorated Mg-Ti-Zr nanocomposite for hydrogen storage at moderate temperatures. 2018 , 206, 21-28		12
266	Hydrolysis Batteries: Generating Electrical Energy during Hydrogen Absorption. 2018 , 130, 2241-2245		2
265	Improved hydrogen absorption and desorption kinetics of magnesium-based alloy via addition of yttrium. 2018 , 378, 636-645		49
264	Fast lateral hydrogen diffusion in magnesium-hydride films on sapphire substrates studied by electrochemical hydrogenography. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 1634-1642	6.7	5
263	An Investigation on Hydrogen Storage Kinetics of the Nanocrystalline and Amorphous LaMg ₁₂ -type Alloys Synthesized by Mechanical Milling. 2018 , 33, 278-287		1
262	An outstanding effect of graphite in nano-MgH ₂ /TiH ₂ on hydrogen storage performance. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 10740-10754	13	58
261	Hydrogen storage properties of LaMg ₄ Cu. 2018 , 95, 73-79		8
260	Tailoring magnesium based materials for hydrogen storage through synthesis: Current state of the art. 2018 , 10, 168-198		174
259	Progress and Trends in Magnesium-Based Materials for Energy-Storage Research: A Review. <i>Energy Technology</i> , 2018 , 6, 445-458	3.5	104
258	The enhanced de/re-hydrogenation performance of MgH ₂ with TiH ₂ additive. <i>International Journal of Energy Research</i> , 2018 , 42, 1139-1147	4.5	32
257	Enhancement of hydrogen storage properties by in situ formed LaH ₃ and Mg ₂ NiH ₄ during milling MgH ₂ with porous LaNiO ₃ . 2018 , 318, 113-118		10
256	Effects of magnesium-based hydrogen storage materials on the thermal decomposition, burning rate, and explosive heat of ammonium perchlorate-based composite solid propellant. 2018 , 342, 477-481		46
255	Recent progress in magnesium hydride modified through catalysis and nanoconfinement. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 1545-1565	6.7	76
254	Carbon nanostructures/Mg hybrid materials for hydrogen storage. 2018 , 82, 19-24		25

253	Hydrogen storage properties of nano-CoB/CNTs catalyzed MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2018 , 735, 635-642	5.7	33
252	Hydrogen storage of C14-CrFeV ₂ MnW ₂ Ti ₂ V ₂ Zr ₂ alloys. 2018 , 210, 336-347		24
251	Catalytic Tuning of Sorption Kinetics of Lightweight Hydrides: A Review of the Materials and Mechanism. 2018 , 8, 651		21
250	Optical properties of magnesium nanorods using time dependent density functional theory calculations. 2018 , 20, 28903-28909		1
249	Comparative study of structural, optical and magnetic properties of FePt, FeCu and FePd-codoped (hbox {WO}_{3}) nanocrystalline ceramics: effect of annealing in hydrogen atmosphere. 2018 , 41, 1		4
248	Microstructure and hydrogen storage properties of Mg-based Mg ₈₅ Zn ₅ Ni ₁₀ alloy powders. 2018 , 25, 1172-1178		2
247	Magnetron sputtering as a method for introducing catalytic elements to magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 20836-20842	6.7	1
246	Hydrogen absorption and desorption behavior of Ni catalyzed Mg ₉₀ Ni ₁₀ nanocomposites. 2018 , 165, 709-719		14
245	Synthesis of a new functionalized surface precursor of lithium-magnesium-urea solid blend ball milled with tracers from ordered-mesoporous-alumina for high-performance hydrogen storage. 2018 , 16, 276-281		
244	Nanostructured Metal Hydrides for Hydrogen Storage. 2018 , 118, 10775-10839		256
243	Comparison of planar flow cast magnesium and its non-transition metal alloys. 2018 ,		
242	Hydrogen storage properties of magnesium nanotrees investigated by a quartz crystal microbalance system. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 21844-21855	6.7	4
241	Synthesis of BaFe ₁₂ O ₁₉ by solid state method and its effect on hydrogen storage properties of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 20853-20860	6.7	51
240	Composite Materials with 2D Graphene Structures: Applications for Hydrogen Energetics and Catalysis with Hydrogen Participation. 2018 , 59, 830-838		5
239	The Structural and Electrochemical Effects of N-Heterocyclic Carbene Monolayers on Magnesium. 2018 , 165, G139-G145		5
238	Mg ²⁺ Interaction Induced Hydrogen Uptake and Enhanced Hydrogen Release Kinetics in MgH ₂ -rGO Nanocomposites. 2018 , 122, 22389-22396		20
237	Parametric Effects of Mechanical Alloying on Carbon Nanofiber Catalyst Production in the Ni-Cu System. 2018 , 8, 286		6
236	Size effects on rhodium nanoparticles related to hydrogen-storage capability. 2018 , 20, 15183-15191		11

235	An evolving energy solution: Intermediate hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 12168-12188	6.7	46
234	Optimization of TiH ₂ content for fast and efficient hydrogen cycling of MgH ₂ -TiH ₂ nanocomposites. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 16774-16781	6.7	29
233	Improvement of hydrogen storage properties in MgH ₂ catalysed by K ₂ NbF ₇ . <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 14532-14540	6.7	49
232	Properties of activated MgH ₂ + mischmetal nanostructured composite produced by ball-milling. 2018 , 7, 1		7
231	Role of NiMn _{9.3} Al _{4.0} Co _{14.1} Fe _{3.6} alloy on dehydrogenation kinetics of MgH ₂ . <i>Journal of Magnesium and Alloys</i> , 2018 , 6, 318-325	8.8	19
230	Nanoscale Hydrogenography on Single Magnesium Nanoparticles. 2018 , 18, 4293-4302		29
229	Metal hydrides for lithium-ion battery application: A review. <i>Journal of Alloys and Compounds</i> , 2018 , 769, 167-185	5.7	26
228	The use of Silica from beach sand as catalyst in Magnesium based hydrides for Hydrogen storage materials. 2018 , 105, 012093		6
227	Plasmonics in the Ultraviolet with Aluminum, Gallium, Magnesium and Rhodium. 2018 , 8, 64		46
226	Dehydrogenation process and thermal stability of Mg-Ti-H films in-situ hydrogenated by microwave reactive plasma-assisted co-sputtering technique. <i>Journal of Alloys and Compounds</i> , 2018 , 768, 157-165	5.7	4
225	Theoretical study of hydrogen storage in metal hydrides. 2018 , 24, 127		8
224	Facile In Situ Synthesis of Micro/Nano Structured MgH ₂ Whiskers and Investigation of Their Growth Mechanisms. 2018 , 53, 1800147		3
223	Advanced SEM and TEM Techniques Applied in Mg-Based Hydrogen Storage Research. 2018 , 2018, 6057496		18
222	Small wind turbine generator systems with electrolyser. 2018 ,		1
221	First principles investigation of Mg ₇ XH ₁₆ (X = Ti, Zn, Pd, and Cd) ternary hydrides for hydrogen storage applications. 2018 , 5, 065517		1
220	Effects of TiF ₃ addition on the hydrogen storage properties of 4MgH ₂ + Cd composite. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 30574-30582	6.7	1
219	Effect of Mg shell on MgH ₂ dehydrogenation by morphological and mathematical analysis. 2019 , 8, 186-195		
218	Nanocomposites Based on Magnesium for Hydrogen Storage: Achievements and Prospects (A Survey). 2019 , 54, 611-626		2

217	An overview of progress in Mg-based hydrogen storage films. 2019 , 28, 098801		4
216	Excellent catalytic activity of a two-dimensional Nb ₄ C ₃ T _x (MXene) on hydrogen storage of MgH ₂ . 2019 , 493, 431-440		19
215	Plasmons of hollow nanobar oligomers. 2019 , 43, 12351-12357		1
214	Hydrogen storage properties of 2 Mg/Fe mixtures processed by hot extrusion: Effect of ram speeds. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 20203-20212	6.7	2
213	Room-Temperature Hydrogen Absorption of Titanium with Surface Modification by Organic Solvents. 2019 , 123, 19269-19274		4
212	Hydrogen Storage for Mobility: A Review. 2019 , 12,		155
211	Destabilizing the Dehydrogenation Thermodynamics of Magnesium Hydride by Utilizing the Immiscibility of Mn with Mg. 2019 , 58, 14600-14607		13
210	The role of Fe particle size and oxide distribution on the hydrogenation properties of ball-milled nano-crystalline powder mixtures of Fe and Mg. <i>Journal of Alloys and Compounds</i> , 2019 , 806, 1039-1046	5.7	9
209	Effect of Ti-additives on hydrogenation/dehydrogenation properties of MgH ₂ . 2019 ,		0
208	In situ observation of hydride nucleation and selective growth in magnesium thin-films with environmental transmission electron microscopy. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 32112-32123	6.7	6
207	Chemisorption-repulsion energies of H on surface (110) of MgM alloys (M = Al, Ni, Zn; 0.0 ≤ M.20) as a function of temperature. 2019 , 25, 326		5
206	Effects of graphite addition and air exposure on ball-milled Mg/Al alloys for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 23257-23266	6.7	6
205	Hydrides of early transition metals as catalysts and grain growth inhibitors for enhanced reversible hydrogen storage in nanostructured magnesium. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 23064-23075	13	24
204	Hydrogenation of Pd/Mg films: A quantitative assessment of transport coefficients. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 27862-27875	6.7	5
203	Hydrogen adsorption, dissociation, and diffusion on high-index Mg(101 $\bar{1}$ 3) and their comparisons with Mg(0001): A systematic first-principles study. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 4897-4906	6.7	8
202	Magnesium based materials for hydrogen based energy storage: Past, present and future. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 7809-7859	6.7	264
201	Probing role of shell thickness in the optical response of core-shell nanorods. 2019 , 717, 175-181		1
200	How to Design Hydrogen Storage Materials? Fundamentals, Synthesis, and Storage Tanks. 2019 , 3, 1900043		48

199	Purity of MgH ₂ Improved by the Process of Pre-milling Assisted Hydriding of Mg Powder under a Hydrogen Pressure of 0.5 MPa. 2019 , 93, 665-673		2
198	Synthesis, characterisation and hydrogen sorption properties of mechanically alloyed Mg(Ni _{1-x} Mn _x) ₂ . 2019 , 13, 186-194		7
197	The effect of oxygen coverages on hydrogenation of Mg (0001) surface. 2019 , 487, 510-518		4
196	Nanoflakes MgNiO ₂ synthesised via a simple hydrothermal method and its catalytic roles on the hydrogen sorption performance of MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2019 , 796, 279-286	5.7	57
195	Transition metal substitution on Mg(101̄B) and Mg(0001) surfaces for improved hydrogenation and dehydrogenation: A systematic first-principles study. 2019 , 479, 626-633		2
194	Synergistic Effect of New ZrNi ₅ /Nb ₂ O ₅ Catalytic Agent on Storage Behavior of Nanocrystalline MgH ₂ Powders. 2019 , 9, 306		6
193	Effect of LaNi ₃ Amorphous Alloy Nanopowders on the Performance and Hydrogen Storage Properties of MgH ₂ . 2019 , 12, 1005		12
192	Hydrogen storage behavior of magnesium catalyzed by nickel-graphene nanocomposites. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 29212-29223	6.7	47
191	Influence of Defects on the Stability and Hydrogen-Sorption Behavior of Mg-Based Hydrides. 2019 , 20, 1216-1247		9
190	Recent advances in magnesium-based hydrogen storage materials with multiple catalysts. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 10694-10712	6.7	35
189	Microstructural evolution and hydrogen storage properties of a Ni-modified Mg ₁₅ Al alloy. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 10788-10799	6.7	4
188	Optical properties of aluminum intercalated magnesium nanoparticle square array: a computational study. 2019 , 21, 6750-6755		1
187	Desorption properties of LiAlH ₄ doped with LaFeO ₃ catalyst. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 11953-11960	6.7	18
186	Enhanced hydrogenation and hydrolysis properties of core-shell structured Mg-MO _x (M = Al, Ti and Fe) nanocomposites prepared by arc plasma method. <i>Chemical Engineering Journal</i> , 2019 , 371, 233-243	14.7	22
185	Recent developments in the fabrication, characterization and implementation of MgH-based solid-hydrogen materials in the Kuwait Institute for Scientific Research.. 2019 , 9, 9907-9930		23
184	Effects of KNbO ₃ catalyst on hydrogen sorption kinetics of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 29196-29202	6.7	12
183	Low temperature de/hydrogenation in the partially crystallized Mg ₆₀ Ce ₁₀ Ni ₂₀ Cu ₁₀ metallic glasses induced by milling with process control agents. <i>Journal of Alloys and Compounds</i> , 2019 , 792, 835-843	5.7	10
182	Metal Hydrides for Energy Storage. 2019 , 775-810		2

181	Mg-based metastable nano alloys for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 6007-6018	6.7	33
180	First Principles Investigation on the Elastic Properties of Mg, Ca, K-decorated Planar Aluminene. 2019 ,		
179	Facile Hydrogen Release on the Composites of Lithium Hydride with Carbonaceous and Polymer Materials. 2019 , 62, 87-96		1
178	A small pilot reactor containing active MgTiBased hydrides at low operational temperatures. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 29170-29178	6.7	5
177	Synergistic effects of transition metal halides and activated carbon nanofibers on kinetics and reversibility of MgH ₂ . 2019 , 124, 81-88		15
176	Plasmons of magnesium nanodisks and their interactions with a dipole-carrying molecule. 2019 , 108, 296-299		
175	An Analytical Bond Order Potential for Mg-H Systems. 2019 , 20, 1404-1411		2
174	Enhanced hydrogen storage by a variable temperature process. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 3771-3778	6.7	5
173	Structure and electrochemical performances of as-milled LaMg ₁₂ -type alloyNi composites. 2019 , 26, 59-68		1
172	Catalytic effect of SrTiO ₃ on the hydrogen storage behaviour of MgH ₂ . 2019 , 28, 46-53		70
171	Understanding the dehydrogenation properties of MgH ₂ catalysed by Na ₃ AlF ₆ . <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 30583-30590	6.7	15
170	The effect of the SnO ₂ substrate on the band gap and magnetic proprieties of MgH ₂ ultra-thin films: Ab-initio calculation. 2019 , 127, 27-34		
169	Chemically transformed additive phases in Mg ₂ TiO ₄ and MgTiO ₃ loaded hydrogen storage system MgH ₂ . 2019 , 472, 99-104		12
168	The performance of green carbon as a backbone for hydrogen storage materials. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 10516-10522	6.7	8
167	The influence of mechanical milling parameters on hydrogen desorption from Mgh ₂ -Wo ₃ composites. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 7901-7911	6.7	2
166	Enhancement of hydrogen storage properties of Ca ₃ CH antiperovskite compound with hydrogen doping. <i>International Journal of Energy Research</i> , 2020 , 44, 567-573	4.5	3
165	Hydrogen storage properties of filings of the ZK60 alloy modified with 2.5 wt% mischmetal. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 5375-5383	6.7	3
164	Fast Forging: A new SPD method to synthesize Mg-based alloys for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 7912-7916	6.7	8

163	Properties of BaYO ₃ perovskite and hydrogen storage properties of BaYO ₃ Hx. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 10507-10515	6.7	7
162	Hybrid activation mechanism of thermal annealing for hydrogen storage of magnesium based on experimental evidence and theoretical validation. 2020 , 504, 144491		10
161	A landscape of hydride compounds for off-board refilling of transport vehicles. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 2954-2966	6.7	4
160	Mechanical Synthesis and Hydrogen Storage Characterization of MgVCr and MgVTiCrFe High-Entropy Alloy. 2020 , 22, 1901079		26
159	LaFeO ₃ synthesised by solid-state method for enhanced sorption properties of MgH ₂ . 2020 , 16, 102844		44
158	Preparation, characterization and hydrogen storage studies of carbon nanotubes and their composites: A review. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 4653-4672	6.7	58
157	Magnesium-Based Materials for Hydrogen Storage-A Scope Review. 2020 , 13,		21
156	Metal (boro-) hydrides for high energy density storage and relevant emerging technologies. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 33687-33730	6.7	28
155	Molecular dynamics study on magnesium hydride nanoclusters with machine-learning interatomic potential. 2020 , 102,		2
154	Mg ₂ (Fe, Cr, Ni)HX complex hydride synthesis from austenitic stainless steel and magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 19440-19454	6.7	9
153	Copper-dolomite as effective catalyst for glycerol hydrogenolysis to 1,2-propanediol. 2020 , 112, 34-51		18
152	Hydrogen adsorption on calcium-decorated planar aluminene using density functional theory. 2020 , 463, 012104		2
151	Development of a Novel Method for the Fabrication of Nanostructured Zr(x)Ni(y) Catalyst to Enhance the Desorption Properties of MgH ₂ . 2020 , 10, 849		4
150	Kinetics and thermodynamics of near eutectic Mg-Mg ₂ Ni composites produced by casting process. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 29009-29022	6.7	13
149	Destabilization of LiBH ₄ by the infusion of Bi ₂ X ₃ (X = S, Se, Te): an in situ TEM investigation. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 25706-25715	13	3
148	The lightest solid meets the lightest gas: an overview of carbon aerogels and their composites for hydrogen related applications. 2020 , 12, 19536-19556		19
147	Effective Factor on Catalysis of Niobium Oxide for Magnesium. 2020 , 5, 21906-21912		6
146	Hydrogenation Properties of MgCuY with Long Period Stacking Ordered Structure and Formation of Polymorphic ϵ MgH. 2020 , 59, 14263-14274		1

145	A computational workflow to discover novel liquid organic hydrogen carriers and their dehydrogenation routes. 2020 , 5, 1658-1670		3
144	Improving hydrogen storage performance of Mg-based alloy through microstructure optimization. 2020 , 480, 228823		6
143	New Aspects of MgH Morphological and Structural Changes during High-Energy Ball Milling. 2020 , 13,		5
142	Bulk nanostructured AlCoCrFeMnNi chemically complex alloy synthesized by laser-powder bed fusion. 2020 , 35, 101337		1
141	Improved reversible dehydrogenation performance of MgH ₂ by the synergistic effects of porous boron nitride and NbF ₅ . 2020 , 29, 101418		8
140	Shapes, Plasmonic Properties, and Reactivity of Magnesium Nanoparticles. 2020 , 124, 15665-15679		16
139	Mechanically induced-catalyzation for improving the behavior of MgH ₂ . 2020 , 263-291		
138	Hydrogen storage in light-metal based systems: A review. <i>Journal of Alloys and Compounds</i> , 2020 , 829, 154597	5:7	61
137	Magnesium-based hydrogen storage compounds: A review. <i>Journal of Alloys and Compounds</i> , 2020 , 832, 154865	5:7	84
136	Magnesium-Based Materials for Hydrogen Storage: Microstructural Properties. 2020 ,		
135	The effect of K ₂ SiF ₆ on the MgH ₂ hydrogen storage properties. <i>Journal of Magnesium and Alloys</i> , 2020 , 8, 832-840	8.8	44
134	Hydrogen absorption and desorption on Rh nanoparticles revealed by dispersive X-ray absorption fine structure spectroscopy.. 2020 , 10, 19751-19758		
133	Tunable microstructure, de-/hydrogenation kinetics and thermodynamics performance of MgNiAlTiH systems. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 6701-6712	6.7	1
132	Graphene nanoplatelets-reinforced magnesium metal matrix nanocomposites with superior mechanical and corrosion performance for biomedical applications. <i>Journal of Magnesium and Alloys</i> , 2020 , 8, 269-290	8.8	46
131	Conversion of magnesium waste into a complex magnesium hydride system: Mg(NH ₂) ₂ NiH. 2020 , 4, 1915-1923		12
130	Beyond Idealized Models of Nanoscale Metal Hydrides for Hydrogen Storage. 2020 , 59, 5786-5796		6
129	Polyol Process Coupled to Cold Plasma as a New and Efficient Nanohydride Processing Method: Nano-NiH as a Case Study. 2020 , 10,		0
128	Ultrafast Atomic Diffusion Paths in Fine-Grained Nickel Obtained by Spark Plasma Sintering. 2020 , 51, 3425-3434		2

127	Phase evolution, thermodynamics and kinetics property of transition metal (TM = Zr, Ti, V) catalyzed Mg _{1-x} Ti _x Ni hydrogen storage alloys. 2020 , 144, 109516		12
126	Fabrication of ball-milled MgO/Mg(OH) ₂ -hydromagnesite composites and evaluation as an air-stable hydrogen storage material. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 12949-12960	6.7	6
125	Extreme high reversible capacity with over 8.0 wt% and excellent hydrogen storage properties of MgH ₂ combined with LiBH ₄ and Li ₃ AlH ₆ . 2020 , 50, 296-306		11
124	Structure and electrochemical properties of La _{1-x} Mg _x Ni _{2.8} Co _{0.4} Mn _{0.1} Al _{0.2} (x = 0.25, 0.30, 0.33) hydrogen storage alloys. <i>Rare Metals</i> , 2020 , 39, 1464-1468	5.5	2
123	Silicon Fuel: A hydrogen storage material. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 1627-1633	6.7	1
122	Kinetics of MgH ₂ formation by ball milling. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 967-973	6.7	4
121	Synthesis process and catalytic activity of Nb ₂ O ₅ hollow spheres for reversible hydrogen storage of MgH ₂ . <i>International Journal of Energy Research</i> , 2021 , 45, 3129-3141	4.5	10
120	Highly active multivalent multielement catalysts derived from hierarchical porous TiNb ₂ O ₇ nanospheres for the reversible hydrogen storage of MgH ₂ . 2021 , 14, 148-156		24
119	Hydrogen adsorption on calcium, potassium, and magnesium-decorations aluminene using density functional theory. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 16676-16684	6.7	2
118	Cross-sectional TEM investigation of Mg-LaNi ₅ -Soot hybrids for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 5507-5519	6.7	3
117	Structural properties of Mg - x wt% Co (x = 0, 5, 10 & 20) nanocomposites for hydrogen storage applications. <i>Materials Today: Proceedings</i> , 2021 , 42, 1713-1717	1.4	0
116	Solid-state hydrogen storage as a future renewable energy technology. 2021 , 263-287		
115	Hydrogen sorption properties of M _{0.2} Ca _{0.8} MgH ₄ (M = Li, Na). <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 9151-9162	6.7	0
114	Hydrogen Nanometrology in Advanced Carbon Nanomaterial Electrodes. 2021 , 11,		2
113	Effect of Ti-based nanosized additives on the hydrogen storage properties of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	7
112	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> , 2021 , 47, 7299-7299	6.7	0
111	Hydrogen Uptake and Release in Carbon Nanotube Electrocatalysts. 2021 , 11,		3
110	Nanoconfinement effects on hydrogen storage properties of MgH ₂ and LiBH ₄ . <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 23723-23723	6.7	9

109	Boron from net charge acceptor to donor and its effect on hydrogen uptake by novel Mg-B-electrochemically synthesized reduced graphene oxide. <i>2021</i> , 11, 10995		2
108	Characterization of microstructure, hydrogen storage kinetics and thermodynamics of ball-milled Mg ₉₀ Y _{1.5} Ce _{1.5} Ni ₇ alloy. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 17802-17813	6.7	3
107	Catalytic effect comparison of TiO ₂ and La ₂ O ₃ on hydrogen storage thermodynamics and kinetics of the as-milled La-Sm-Mg-Ni-based alloy. <i>Journal of Magnesium and Alloys</i> , 2021 , 9, 2063-2063	8.8	0
106	Advanced hydrogen storage of the Mg-Ni system: A review. <i>Journal of Magnesium and Alloys</i> , 2021 , 9, 1111-1111	8.8	11
105	Adsorption-Based Hydrogen Storage in Activated Carbons and Model Carbon Structures. 2021 , 2, 209-226		3
104	Dual-tuning of de/hydrogenation kinetic properties of Mg-based hydrogen storage alloy by building a Ni-/Co-multi-platform collaborative system. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 24202-24213	6.7	7
103	Halide-free Grignard reagents for the synthesis of superior MgH ₂ nanostructures. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 28675-28685	6.7	1
102	Mg-based materials for hydrogen storage. <i>Journal of Magnesium and Alloys</i> , 2021 , 9, 1837-1837	8.8	18
101	TiMn ₂ -Based Intermetallic Alloys for Hydrogen Accumulation: Problems and Prospects. <i>Progress in Physics of Metals</i> , 2021 , 22, 307-351	1.6	0
100	Rate equation theory for the hydrogenation kinetics of Mg-based materials. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 30061-30078	6.7	0
99	Hydrogen Economy and Role of Hythane as a Bridging Solution: A Perspective Review.		7
98	The Catalytic Role of D-block Elements and Their Compounds for Improving Sorption Kinetics of Hydride Materials: A Review. 2021 , 2, 333-364		0
97	Room Temperature Hydrogen Absorption of Mg/MgH ₂ Catalyzed by BaTiO ₃ . 2021 , 125, 19631-19641		4
96	Numerical simulation of heat supply and hydrogen desorption by hydrogen flow to porous MgH ₂ sheet. <i>Chemical Engineering Journal</i> , 2021 , 421, 129648	14.7	2
95	Influence of the Fe-doping on hydrogen behavior on the ZrCo surface. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 33877-33888	6.7	3
94	Thermally stable La-Ni-B amorphous additives for enhancing hydrogen storage performance of MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2021 , 888, 161520	5.7	5
93	Catalytic effect of TiO ₂ on hydrogen storage properties of MgH ₂ . <i>Materials Today: Proceedings</i> , 2021 , 46, 2326-2329	1.4	2
92	Synergetic effect of C and Ni on hydrogen release from Mg-Ni-electrochemically synthesized reduced graphene oxide based hydride. 2021 , 5, 4414-4424		2

91	MgH ₂ /CARBON COMPOSITES FOR HYDROGEN STORAGE. 2007 , 193-197		2
90	Metal Hydrides for Energy Storage. 2018 , 1-36		2
89	Hydrogen Storage. <i>Green Energy and Technology</i> , 2008 , 81-128	0.6	5
88	Metal Hydrides used for Hydrogen Storage. 2017 , 225-255		3
87	Increase in the dehydrogenation rates and hydrogen-storage capacity of Mg-graphene composites by adding nickel via reactive ball milling. 2020 , 130, 110938		5
86	Absorption of Hydrogen by Thin Films. <i>Progress in Physics of Metals</i> , 2015 , 16, 85-117	1.6	1
85	Severe Plastic Deformation and Additive Distribution in Mg-Fe to Improve Hydrogen Storage Properties. 2017 , 20, 61-70		6
84	Mechanical alloys Mg-Me (Me: Ti, Fe, Ni, Al) & Mg-Me ₁ -Me ₂ (Me ₁ :Al, Me ₂ : Ti, Fe, Ni) with low resistance and improved kinetics of hydrogenation/dehydrogenation for hydrogen storage applications. 2018 , 6, 31-55		1
83	Tailoring nanocrystalline materials towards potential applications. 2003 , 94, 610-614		9
82	Improvement of the Hydrogen-Release Features of Mg-Graphene Composite by Adding Nickel via Reactive Ball Milling. 2019 , 57, 663-672		4
81	Effects of Metal Oxide Additives on Anode Properties of Magnesium Hydride for All-Solid-State Lithium Ion Batteries. 2014 , 93, 926-930		5
80	Materials for hydrogen storage and the Na-Mg-B-H system. 2015 , 3, 75-100		5
79	Proceso de molturaci3n mec3nica en medio seco, h3medo y criog3nico de polvo de hierro d3ctil nanoestructurado. 2011 , 47, 197-204		2
78	Improvement in Hydriding and Dehydriding Features of Mg-TaF-VCl Alloy by Adding Ni and x wt% MgH (x = 1, 5, and 10) Together with TaF and VCl. 2021 , 12,		1
77	Explosion characteristics and suppression of hybrid Mg/H ₂ mixtures. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 38934-38943	6.7	5
76	Modern concepts of conversion and storage of energy by dispersed materials absorption. 2002 , 34, 247-259		
75	Nanocrystalline light metal hydrides for hydrogen storage. 2006 , 266-302		
74	Preparation and Electrochemical Characteristics of MgNi-TiNi _{0.56} Mo _{0.44} (M=Al,Fe)Alloys. 2009 , 24, 361-366		

73	NEXAFS Analysis of Mg Nanoparticles Oxidized in Atmosphere. 2010 , 130, 1746-1750		2
72	Nanostructured Hydrides for Solid State Hydrogen Storage for Vehicular Applications. 2011 , 223-286		
71	Future Perspectives for Hydrogen as Fuel in Transportation. 2011 , 243-288		
70	Production of Atomic Photochemical Hydrogen and Photoinjection of Hydrogen in Solids. 2013 , 241-282		
69	Magnesium and Doped Magnesium Nanostructured Materials for Hydrogen Storage. <i>Green Energy and Technology</i> , 2014 , 297-319	0.6	
68	Changeover of the Thermodynamic Behavior for Hydrogen Storage in Rh with Increasing Nanoparticle Size. <i>Springer Theses</i> , 2014 , 69-76	0.1	
67	Introduction. <i>Springer Theses</i> , 2016 , 1-40	0.1	
66	Stability and Electronic Structure of Magnesium Dihydride Phases. <i>Metallofizika I Noveishie Tekhnologii</i> , 2017 , 39, 1149-1163	0.5	
65	Thermodynamic and kinetic properties of Mg-based compounds. 2018 , 24-38		
64	From Nanomaterials and Nanotechnologies to the Alternative Energy. <i>Progress in Physics of Metals</i> , 2018 , 19, 442-486	1.6	0
63	Thin Film Hydrogen Storages. 2019 , 913-939		
62	Cluster nanoportals for the hydrogenation of underlying nanofilms. <i>Frontiers of Nanoscience</i> , 2020 , 87-1187		
61	Nanostructured advanced materials for hydrogen storage. 2020 , 97-163		1
60	Metallurgical processing of Mg alloys and MgH ₂ for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2021 , 162798	5.7	2
59	Thermodynamics and kinetics of hydriding and dehydriding reactions in Mg-based hydrogen storage materials. <i>Journal of Magnesium and Alloys</i> , 2021 ,	8.8	17
58	Characterization on the kinetics and thermodynamics of Mg-based hydrogen storage alloy by the multiple alloying of Ce, Ni and Y elements. <i>Materials Characterization</i> , 2021 , 182, 111583	3.9	1
57	Thermodynamic assessment of the Co-Mg binary system. <i>Journal of Mining and Metallurgy, Section B: Metallurgy</i> , 2021 , 51-51	1	1
56	Hydrogen storage properties of Pr-Mg-Ni- based alloys prepared by vacuum induction melting. <i>Vacuum</i> , 2022 , 197, 110865	3.7	1

55	Recent progress on enhancing the hydrogen storage properties of Mg-based materials via fabricating nanostructures: A critical review. <i>Journal of Alloys and Compounds</i> , 2022 , 897, 163137	5.7	3
54	Synergistic effect of TiH ₂ and air exposure on enhancing hydrogen storage performance of Mg ₂ NiH ₄ . <i>Chemical Engineering Journal</i> , 2022 , 433, 134489	14.7	3
53	Effect of PdCl ₂ catalyst on the hydrogenation properties and sorption kinetics of Mg. <i>Sustainable Energy Technologies and Assessments</i> , 2022 , 51, 101981	4.7	
52	Hydrogen Storage and Transportation Technologies to Enable the Hydrogen Economy: Liquid Organic Hydrogen Carriers. <i>Johnson Matthey Technology Review</i> , 2022 ,	2.5	0
51	Enhanced hydrogen storage properties of ball-milled Mg with C ₆₀ and Fe. <i>Mechanical Engineering Journal</i> , 2022 , 9,	0.5	
50	An investigation on the addition of SrTiO ₃ to the hydrogen storage properties of the 4MgH ₂ -Li ₃ AlH ₆ composite. <i>International Journal of Energy Research</i> ,	4.5	0
49	Achieving superior hydrogen storage properties via in-situ formed nanostructures: A high-capacity Mg ₂ Ni alloy with La microalloying. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 6755-6766	6.7	0
48	Superior cycle life of TiZrFeMnCrV high entropy alloy for hydrogen storage. <i>Scripta Materialia</i> , 2022 , 212, 114548	5.6	1
47	Tailoring nanocrystalline materials towards potential applications. <i>International Journal of Materials Research</i> , 2022 , 94, 610-614	0.5	
46	The origin of anomalous hydrogen occupation in high entropy alloys. <i>Journal of Materials Chemistry A</i> , 2022 , 10, 7228-7237	13	1
45	Recent advances in metastable alloys for hydrogen storage: a review. <i>Rare Metals</i> , 1	5.5	7
44	Comparative study of Ga and Al alloying with ZrFe ₂ for high-pressure hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 13409-13417	6.7	0
43	Insights into catalytic behavior of TiMg _n (n=1-2) nanoclusters in hydrogen storage and dissociation process: A DFT investigation. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 13418-13429	6.7	0
42	Improved hydrogen storage kinetic properties of magnesium-based materials by adding Ni ₂ P. <i>Renewable Energy</i> , 2022 , 189, 559-569	8.1	2
41	Recent Advances on Mg ₂ Ni-Al Systems for Solid-State Hydrogen Storage: A Review. <i>Frontiers in Energy Research</i> , 2022 , 10,	3.8	2
40	Density functional theoretical analysis of micro-adsorption of isotopes of hydrogen molecule and atom by uranium. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	0
39	Graphitic carbon nitride (g-C ₃ N ₄) decorated with Yttrium as potential hydrogen storage material: Acumen from quantum simulations. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	0
38	Hydriding pathway for Ni nanoparticles: Computational characterization provides insights into the nanoparticle size and facet effect on layer-by-layer subsurface hydride formation. <i>Computational Materials Science</i> , 2022 , 210, 111482	3.2	1

37	Lightweight Portable and High Thermal Conductivity Storage/Release Hydrogen Bottle. 2022 ,		
36	Interaction of zirconia with magnesium hydride and its influence on the hydrogen storage behavior of magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	0
35	Non-classical hydrogen storage mechanisms other than chemisorption and physisorption. <i>Applied Physics Reviews</i> , 2022 , 9, 021315	17.3	1
34	Hydrogen Diffusion on, into and in Magnesium Probed by DFT: A Review. <i>Hydrogen</i> , 2022 , 3, 285-302	1.8	0
33	Microstructure characteristics, hydrogen storage thermodynamic and kinetic properties of MgNi ₃ based hydrogen storage alloys. <i>International Journal of Hydrogen Energy</i> , 2022 ,	6.7	1
32	Catalysis in Solid Hydrogen Storage: Recent Advances, Challenges and Perspectives. <i>Energy Technology</i> ,	3.5	2
31	Hydrogen storage methods: Review and current status. <i>Renewable and Sustainable Energy Reviews</i> , 2022 , 167, 112743	16.2	11
30	Influence of hydrogenation on the structural, optical and magnetic properties of Gd-incorporated WO ₃ nanocomposites synthesised by precipitation method. <i>Materials Research Innovations</i> , 1-8	1.9	
29	Real-Time Monitoring of the Dehydrogenation Behavior of a Mg ₂ FeH ₆ /MgH ₂ Composite by In Situ Transmission Electron Microscopy. <i>Advanced Functional Materials</i> , 2204147	15.6	1
28	Effect of annealing and hydrogenation on optical and electrical properties of DC sputtered Mg-Ni bilayer thin films. <i>Materials Today: Proceedings</i> , 2022 ,	1.4	0
27	Nanomaterials for on-board solid-state hydrogen storage applications. 2022 ,		1
26	Recent progress of nanotechnology in enhancing hydrogen storage performance of magnesium-based materials: A review. 2022 ,		1
25	A comprehensive review on hydrogen production and utilization in North America: Prospects and challenges. 2022 , 269, 115927		4
24	Ocean energy applications for coastal communities with artificial intelligence a state-of-the-art review. 2022 , 10, 100189		0
23	Synthesis of magnesium and Mg@Ni core-shell nanoparticles by microemulsion for hydrogen storage applications. 2022 , 33, 21321-21335		0
22	Study on Hydriding Kinetics, Structural Properties and Electrical Conductivity of D.C. Magnetron Sputtered Mg/Al Thin Films. 338, 83-90		0
21	Improving hydrogen storage thermodynamics and kinetics of Ce-Mg-Ni-based alloy by mechanical milling with TiF ₃ . 2022 ,		0
20	The mechanism and sorption kinetic analysis of hydrogen storage at room temperature using acid functionalized carbon nanotubes. 2022 ,		1

19	The role of storage systems in hydrogen economy: A review. 2022 , 108, 104843	3
18	Hydrogen storage performances of La-Sm-Mg-Ni alloy prepared by casting and ball milling. 2023 , 174, 111165	0
17	Hydrogen storage 2022 , 67, 663	0
16	Role of vacancies and transition metals on the thermodynamic properties of MgH ₂ : Ab-initio study. 2022 ,	0
15	Influence of adding graphene on the hydrogen storage thermodynamics and kinetics of as-milled CeMg ₁₂ Ni alloy. 2023 ,	0
14	Short-Range Nanoreaction Effect on the Hydrogen Desorption Behaviors of the MgH ₂ Ni@C Composite. 2023 , 15, 1384-1391	1
13	Recent advances of magnesium hydride as an energy storage material. 2023 , 149, 99-111	0
12	In situ analysis of phase constituents evolution upon hydrogen cycling of cold-forged Mg-Ni powders. 2023 , 947, 169543	0
11	Hydrogen absorption-desorption properties and hydrolysis performance of MgH ₂ -Zr ₃ V ₃ O _{0.6} Hx and MgH ₂ -Zr ₃ V ₃ O _{0.6} Hx-C composites. 2023 , 65, 107245	0
10	Synergistic enhancement of hydrogen storage properties in MgH ₂ using LiNbO ₃ catalyst. 2023 ,	0
9	Recent developments in state-of-the-art hydrogen energy technologies [Review of hydrogen storage materials. 2023 , 5, 100033	0
8	Theoretical study of hydrogen adsorption kinetics: Mg ₁₇ Al ₁₂ vs pure Mg. 2023 ,	0
7	MgB ₂ Reduced Graphene Oxide Nanocomposites with Negligible Incubation Time for Hydrogen Release. 2200470	0
6	Hydrides for Efficient Hydrogen Storage. 2022 , 1-46	0
5	First-principles quantum computations to investigate prospects of Mg ₂ FeH ₆ for optoelectronics and hydrogen-storage applications. 2023 ,	0
4	Improvement of decomposition temperature and gravimetric density of MgH ₂ by transition metals and vacancies: A comparison study. 2023 , 115170	0
3	Recent Advances and Challenges of Anodes for Aqueous Alkaline Batteries. 2023 , 100102	0
2	Hydrogen storage properties of MgH ₂ ∕m: Ni-catalysis vs. mechanical milling. 2023 ,	0

- 1 Hydrogen storage thermodynamics and kinetics of the as-cast and milled Ce-Mg-Ni-based alloy.
2023, 35, 106217

o