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Metal oxides as catalysts for improved hydrogen sorption in nanocrystalline Mg-based materials

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#	Paper	IF	Citations
653	Metal oxides as catalysts for improved hydrogen sorption in nanocrystalline Mg-based materials. <i>Journal of Alloys and Compounds</i> , 2001 , 315, 237-242	5.7	618
652	Nanocrystalline Mg-based hydrides for hydrogen storage. 2001 , 676, 451		1
651	Mg-Based Hydrogen Storage Materials with Improved Hydrogen Sorption. <i>Materials Transactions</i> , 2001 , 42, 1588-1592	1.3	31
650	Overview of processing of nanocrystalline hydrogen storage intermetallics by mechanical alloying/milling. 2002 , 17, 129-156		28
649	Reactive mechanical grinding of magnesium in hydrogen and the effects of additives. 2002 , 17, 351-361		7
648	Hydrogen in Metals. 2002 , 109-143		4
647	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
646	Improvement in hydrogen sorption properties of Mg by reactive mechanical grinding with Cr ₂ O ₃ , Al ₂ O ₃ and CeO ₂ . <i>Journal of Alloys and Compounds</i> , 2002 , 340, 256-262	5.7	131
645	Cycling and thermal stability of nanostructured MgH ₂ /Cr ₂ O ₃ composite for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2002 , 347, 319-323	5.7	169
644	Hydrogen storage properties of nanocomposite Mg ₉₀ Ni ₁₀ /Cu ₂ CrCl ₃ prepared by mechanical alloying. 2002 , 335, 43-48		24
643	Fast hydrogen sorption kinetics of nanocrystalline Mg using Nb ₂ O ₅ as catalyst. 2003 , 49, 213-217		464
642	Addition of nanosized Cr ₂ O ₃ to magnesium for improvement of the hydrogen sorption properties. <i>Journal of Alloys and Compounds</i> , 2003 , 351, 217-221	5.7	82
641	Structural evolution and metastable phase detection in MgH ₂ /NbH nanocomposite during in-situ H-desorption in a synchrotron beam. <i>Journal of Alloys and Compounds</i> , 2003 , 353, 246-251	5.7	69
640	Improvements of hydrogen storage properties of Mg-based mixtures elaborated by reactive mechanical milling. <i>Journal of Alloys and Compounds</i> , 2003 , 356-357, 570-574	5.7	14
639	Hydrogen sorption properties of the nanocomposite 90 wt% Mg ₂ Ni+10 wt% V. <i>Journal of Alloys and Compounds</i> , 2003 , 356-357, 593-597	5.7	9
638	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
637	The absorption and desorption properties of nanocrystalline Mg ₂ Ni _{0.75} Cr _{0.25} alloy containing TiO ₂ nanoparticles. <i>Journal of Alloys and Compounds</i> , 2003 , 356-357, 649-653	5.7	10

636	Synthesis of nanocrystalline hydrogen storage materials. <i>Journal of Alloys and Compounds</i> , 2003 , 356-357, 603-607	5-7	108
635	Catalytic effect of additives on the hydrogen absorption properties of nano-crystalline MgH ₂ (X) composites. <i>Journal of Alloys and Compounds</i> , 2003 , 356-357, 622-625	5-7	57
634	Hydrogen interaction with mechanically alloyed magnesium salt composite materials. <i>Journal of Alloys and Compounds</i> , 2003 , 359, 320-325	5-7	41
633	Effect of addition of Mn and Co on the hydrogen storage characteristics of microcrystalline Mg. <i>Journal of Alloys and Compounds</i> , 2003 , 359, 315-319	5-7	12
632	Comparative study of first hydriding of MgNiF and MgNiCl mechanical alloys. <i>Journal of Alloys and Compounds</i> , 2003 , 360, 256-265	5-7	9
631	Formation of MgMg ₂ Cu nanostructured eutectic in Mg-based metal matrix composite. 2003 , 18, 1934-1942		13
630	Hydriding Behaviour of Mg-C Nanocomposites. 2003 , 801, 70		2
629	Hydrogenation of nanocrystalline Mg-based alloys. 2003 , 801, 96		
628	Synergism of nano ZnO for improvement of hydrogen absorption performance of TiV-based alloys. 2004 , 19, 2799-2802		2
627	Formation of Mg ₂ Ni nanofibres in a Mg-based metal matrix composite. 2004 , 84, 3771-3784		1
626	Microstructural change in gravity cast MgNi alloys with Ni contents. 2004 , 10, 605-608		5
625	Effects of additives on mechanical milling and hydrogenation of magnesium powders. <i>International Journal of Hydrogen Energy</i> , 2004 , 29, 491-496	6-7	44
624	Nano scale structure such as nano-size crystallites and defects can be found in conventional hydrogen absorbing alloys. 2004 , 108, 60-66		3
623	The effect of ball milling and equal channel angular pressing on the hydrogen absorption/desorption properties of Mg _{0.95} Zn _{0.71} Zr (ZK60) alloy. 2004 , 52, 405-414		143
622	Microstructure and hydrogen absorption-desorption properties of MgTiFe _{0.92} Mn _{0.08} composites prepared by wet mechanical milling. <i>Journal of Alloys and Compounds</i> , 2004 , 375, 283-291	5-7	28
621	Effects of reactive mechanical milling conditions on the physico-chemical properties of Mg+Cr ₂ O ₃ mixtures. <i>Journal of Alloys and Compounds</i> , 2004 , 376, 205-210	5-7	16
620	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
619	Effect of Nb ₂ O ₅ content on hydrogen reaction kinetics of Mg. <i>Journal of Alloys and Compounds</i> , 2004 , 364, 242-246	5-7	338

618	Hydrogen sorption properties of an Mg + WO ₃ mixture made by reactive mechanical alloying. <i>Journal of Alloys and Compounds</i> , 2004 , 366, 303-308	5-7	25
617	Composite Materials based on Light Elements for Hydrogen Storage. <i>Materials Transactions</i> , 2005 , 46, 1-14	1-3	71
616	Effects of metal oxides on electrochemical hydrogen storage of nanocrystalline LaMg ₁₂ Ni composites. 2005 , 50, 2187-2191		20
615	Hydrogen desorption from ball milled MgH ₂ catalyzed with Fe. 2005 , 43, 19-27		87
614	Nanotechnological Aspects in Materials for Hydrogen Storage. 2005 , 7, 443-455		216
613	Recent Developments in Nanostructured Materials. 2005 , 7, 983-992		61
612	Hydrogenation properties of mechanically milled Mg ₂ Ni _{0.8} Cr _{0.2} -CoO/Al ₂ O ₃ composites. 2005 , 6, 208-12		
611	Chemical activation of MgH ₂ ; a new route to superior hydrogen storage materials. 2005 , 2823-5		93
610	Room-temperature hydrogen uptake by TiO(2) nanotubes. 2005 , 44, 4124-6		185
609	Direct hydriding of Mg ₈₇ Al ₇ Ni ₃ Mn ₃ by reactive mechanical milling in hydrogen atmosphere and influence of particle size on the dehydriding reaction. <i>Journal of Alloys and Compounds</i> , 2005 , 388, 98-103	5-7	19
608	Improving H-sorption in MgH ₂ powders by addition of nanoparticles of transition metal fluoride catalysts and mechanical alloying. <i>Journal of Alloys and Compounds</i> , 2005 , 389, 270-274	5-7	54
607	Structural information on ball milled magnesium hydride from vibrational spectroscopy and ab-initio calculations. <i>Journal of Alloys and Compounds</i> , 2005 , 393, 1-4	5-7	62
606	Thermal stability of nanocrystalline magnesium for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 499-502	5-7	57
605	Dependence of hydrogen storage characteristics of Mg ₉₁ TiFe _{0.92} Mn _{0.08} composite on amount of TiFe _{0.92} Mn _{0.08} . <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 511-514	5-7	12
604	Hydrogenation properties of Mg/Mg ₂ Ni _{0.8} Cr _{0.2} composites containing TiO ₂ nanoparticles. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 529-532	5-7	6
603	Hydrogen diffusion in magnesium metal (β phase) studied by ab initio computer simulations. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 235-237	5-7	34
602	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
601	Hydrogen sorption properties for surface treated MgH ₂ and Mg ₂ Ni alloys. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 293-296	5-7	42

600	Hydriding/dehydriding properties of nanocrystalline Mg ₈₇ Ni ₃ Al ₃ M ₇ (M=Ti, Mn, Ce, La) alloys prepared by ball milling. <i>Journal of Alloys and Compounds</i> , 2005 , 398, 139-144	5-7	26
599	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
598	New catalytic complexes for metal hydride systems. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 706-711	5-7	20
597	Hydriding/dehydriding of Mg ₈₇ Ni ₃ Al ₃ M _{m7} (M _m =La, Ce-rich mischmetal) alloy produced by mechanical milling. <i>Journal of Alloys and Compounds</i> , 2005 , 403, 363-367	5-7	5
596	Investigation of the hydriding kinetic mechanism in the MgH ₂ /Cr ₂ O ₃ -nanocomposite. 2005 , 13, 1190-1194		15
595	Hydrogen storage in magnesium clusters: quantum chemical study. 2005 , 127, 16675-80		493
594	Hydrogen cycling of niobium and vanadium catalyzed nanostructured magnesium. 2005 , 127, 14348-54		196
593	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
592	Effects of SWNT and metallic catalyst on hydrogen absorption/desorption performance of MgH ₂ . 2005 , 109, 22217-21		82
591	Nanoparticles and the environment. 2005 , 55, 708-46		438
590	HYDROGEN IN METALS: Microstructural Aspects. 2006 , 36, 555-608		415
589	Nb ₂ O ₅ "pathway effect" on hydrogen sorption in Mg. 2006 , 110, 7845-50		93
588	Catalytic mechanism of transition-metal compounds on Mg hydrogen sorption reaction. 2006 , 110, 11020-4		220
587	Thermal destabilization of binary and complex metal hydrides by chemical reaction: A thermodynamic analysis. 2006 , 30, 65-69		70
586	Reactivities of H ₂ , O ₂ and H ₂ O with the Cr surface between 77K and 298K. <i>Journal of Alloys and Compounds</i> , 2006 , 413, 214-217	5-7	3
585	Kinetic investigation of the effect of milling time on the hydrogen sorption reaction of magnesium catalyzed with different Nb ₂ O ₅ contents. <i>Journal of Alloys and Compounds</i> , 2006 , 407, 249-255	5-7	252
584	The catalytic effect of Nb ₂ O ₅ on the electrochemical hydrogenation of nanocrystalline magnesium. <i>Journal of Alloys and Compounds</i> , 2006 , 413, 298-301	5-7	12
583	Hydrogen storage in Mg ₈₇ Ni ₃ Be compounds prepared by melt spinning and ball milling. <i>Journal of Alloys and Compounds</i> , 2006 , 415, 170-176	5-7	64

582	Remarkable improvement of hydrogen sorption kinetics in magnesium catalyzed with Nb ₂ O ₅ . <i>Journal of Alloys and Compounds</i> , 2006 , 420, 46-49	5-7	207
581	Microstructure and hydriding properties of ball-milled Mg ₁₀ at.%MmNi ₅ (Mm=La, Ce-rich mischmetal) composites. <i>Journal of Alloys and Compounds</i> , 2006 , 417, 85-91	5-7	14
580	Catalytic effects of metal oxide on hydrogen absorption of magnesium metal hydride. <i>Journal of Alloys and Compounds</i> , 2006 , 421, 179-184	5-7	69
579	Effects of iron oxide (Fe ₂ O ₃ , Fe ₃ O ₄) on hydrogen storage properties of Mg-based composites. <i>Journal of Alloys and Compounds</i> , 2006 , 422, 299-304	5-7	61
578	Hydrogen storage properties of Mg ₁₀ Zr ₂ O ₃ nanocomposites: The role of catalyst distribution and grain size. <i>Journal of Alloys and Compounds</i> , 2006 , 424, 289-293	5-7	31
577	Influence of crystallinity on the structural and hydrogenation properties of Mg ₂ X phases (X=Ni, Si, Ge, Sn). 2006 , 14, 163-169		67
576	Structural and Hydriding Properties of the Composite Material Mg-50 mass%ZrMn ₂ Elaborated by Reactive Mechanical Milling in a Hydrogen Atmosphere. 2006 , 70, 14-19		1
575	Chemical and microstructural study of the oxygen passivation behaviour of nanocrystalline Mg and MgH ₂ . 2006 , 252, 2334-2345		104
574	Automated resonant vibrating-reed analyzer apparatus for a non-destructive characterization of materials for industrial applications. 2006 , 442, 543-546		36
573	Microstructure, surface properties and hydrating behaviour of Mg ₁₀ composites prepared by ball milling with benzene. <i>International Journal of Hydrogen Energy</i> , 2006 , 31, 2088-2096	6.7	32
572	Study of Mg-based materials to be used in a functional solid state hydrogen reservoir for vehicular applications. <i>International Journal of Hydrogen Energy</i> , 2006 , 31, 2097-2103	6.7	16
571	Mössbauer study of Mg ₁₀ Ni(Fe) alloys processed as materials for solid state hydrogen storage. 2006 , 168, 1029-1035		6
570	Structural and optical properties of Mg _x Al _{1-x} Hy gradient thin films: a combinatorial approach. 2006 , 84, 77-85		25
569	SANS/USANS investigations of nanocrystalline MgH ₂ for reversible storage of hydrogen. 2006 , 385-386, 630-632		15
568	Influence of the evaporation rate and the evaporation mode on the hydrogen sorption kinetics of air-exposed magnesium films. 2006 , 496, 683-687		32
567	Using MgO to improve the (de)hydriding properties of magnesium. 2006 , 41, 1118-1126		109
566	Tailoring Hydrogen Storage Materials Towards Application. 2006 , 8, 377-385		181
565	Hydrogen Desorption from MgH ₂ Based Nano-Micro Composites. 2006 , 971, 1		

564	Desorption Behaviour in Nanostructured MgH ₂ -Co. 2006 , 518, 79-84		14
563	Dehydrogenation mechanism in catalyst-activated MgH ₂ . 2006 , 74,		44
562	Dehydriding reaction of metal hydrides and alkali borohydrides enhanced by microwave irradiation. 2006 , 88, 112104		57
561	Synergetic Effect of Oxides on Hydrogen Reaction Kinetics of Magnesium Hydride. 2007 , 561-565, 1605-1608	1	
560	MgH ₂ by Gas Phase Condensation: Nanostructure Morphology and Hydrogen Sorption Behaviour. 2007 , 1042, 1		
559	Reaction with Hydrogen of Micro and Nano Composites Based on Mg. 2007 , 555, 335-342		2
558	Experimental and Theoretical Investigation of Hydrogen Storage in Magnesium Based Composites. 2007 , 555, 343-348		4
557	Magnesium Hydride: From the Laboratory to the Tank. 2007 , 62, 907-914		5
556	Research on hydrogen storage properties of Mg ₃ Ni ₂ MnO ₂ (wt.%) milled with nickel powders of different particle sizes. <i>Journal of Alloys and Compounds</i> , 2007 , 431, 212-216	5-7	1
555	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
554	Microstructure and hydrogen sorption kinetics of Mg nanopowders with catalyst. <i>Journal of Alloys and Compounds</i> , 2007 , 434-435, 725-728	5-7	17
553	Effect of nanosized oxides on MgH ₂ (de)hydriding kinetics. <i>Journal of Alloys and Compounds</i> , 2007 , 434-435, 738-742	5-7	37
552	Influence of the Nb ₂ O ₅ distribution on the electrochemical hydrogenation of nanocrystalline magnesium. <i>Journal of Alloys and Compounds</i> , 2007 , 434-435, 753-755	5-7	6
551	Electrochemical hydrogen insertion in Mg ₃ (Mm)Ni ₅ nanocomposites. <i>Journal of Alloys and Compounds</i> , 2007 , 434-435, 760-763	5-7	6
550	Cyclic hydrogen storage properties of Mg milled with nickel nano-powders and MnO ₂ . <i>Journal of Alloys and Compounds</i> , 2007 , 443, 121-124	5-7	16
549	Effects of O ₂ and H ₂ O preadsorptions on the H ₂ reactivity with the Cr surface. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 555-557	5-7	1
548	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
547	Nanostructured Mg ₃ Mn ₂ Ni hydrogen storage alloy: Structure-properties relationship. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 114-120	5-7	73

546	Enhanced hydrogen reaction kinetics of nanostructured Mg-based composites with nanoparticle metal catalysts dispersed on supports. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 84-89	5-7	11
545	Hydrogen absorption of TiFe alloy synthesized by ball milling and post-annealing. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 200-203	5-7	57
544	Nanostructured magnesium hydride for pilot tank development. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 52-57	5-7	53
543	Hydrogen storage property of MgH ₂ synthesized by hydriding chemical vapor deposition. <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 80-83	5-7	34
542	Hydrogen storage properties of Mg _{100-x} Ni _x (x=5, 11.3, 20, 25) composites prepared by hydriding combustion synthesis followed by mechanical milling (HCS+MM). 2007 , 15, 1582-1588		28
541	In Situ Energy-Dispersive XAS and XRD Study of the Superior Hydrogen Storage System MgH ₂ /Nb ₂ O ₅ . 2007 , 111, 10700-10706		30
540	Hydriding kinetics of ball-milled nanocrystalline MgH ₂ powders. 2007 , 22, 3144-3151		7
539	Metallic and carbon nanotube-catalyzed coupling of hydrogenation in magnesium. 2007 , 129, 15650-4		114
538	The Preparation of Carbon-Supported Magnesium Nanoparticles using Melt Infiltration. 2007 , 19, 6052-6057		168
537	Hydrogen storage properties of ball-milled Mg-based composite with PdCl ₂ additive. 2007 , 8, 1510-1513		3
536	Nanotechnological Aspects in Materials for Hydrogen Storage. 2007 ,		
535	Opto-mechanical characterization of hydrogen storage properties of Mg ₉₅ Ni ₅ thin film composition spreads. 2007 , 254, 682-686		30
534	Metal oxides for solid-state gas sensors: What determines our choice?. 2007 , 139, 1-23		1100
533	Mechanism of the high activity of Mg ₂ NiH ₄ produced by hydriding combustion synthesis based on the analysis of phase composition, particle characteristic and grain size. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 2455-2460	6.7	30
532	Crystal defect analysis and surface characteristics of Mg ₂ NiH ₄ produced by hydriding combustion synthesis. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 2417-2421	6.7	32
531	Dehydrogenation and hydrogenation characteristics of MgH ₂ with transition metal fluorides. 2007 , 172, 859-862		122
530	Small-angle scattering investigations of magnesium hydride used as a hydrogen storage material. 2007 , 40, s383-s387		15
529	Hydriding properties of an Mg ₉₅ Ni ₅ hydrogen storage alloy. 2007 , 56, 789-792		13

528	Hydrogen storage in magnesium-based hydrides and hydride composites. 2007 , 56, 841-846		388
527	Metal hydride compositions on the basis of magnesium as materials for hydrogen accumulation. 2007 , 77, 712-720		16
526	Improved Hydrogen Storage of LiBH ₄ Catalyzed Magnesium. 2007 , 111, 12495-12498		55
525	Hydriding properties of the nanocomposite 85 wt.% Mg/15 wt.% Mg ₂ Ni _{0.8} Co _{0.2} obtained by ball milling. 2007 , 42, 3338-3342		9
524	Hydrogen storage properties of the Mg ₂ Ni ₃ Al system prepared by high-energy/high-pressure reactive milling. 2008 , 180, 491-497		74
523	Advances in the application of nanotechnology in enabling a hydrogen economy. 2008 , 43, 5395-5429		171
522	Magnesium-based materials for hydrogen storage: Recent advances and future perspectives. 2008 , 53, 2421-2431		32
521	The destabilization mechanism and de/re-hydrogenation kinetics of MgH ₂ /AlH ₄ hydrogen storage system. 2008 , 185, 1514-1518		86
520	Materials challenges for hydrogen storage. 2008 , 28, 1467-1473		36
519	Effects of different carbon materials on MgH ₂ decomposition. 2008 , 46, 126-137		124
518	Study of the hydride forming process of in-situ grown MgH ₂ thin films by activated reactive evaporation. 2008 , 516, 4351-4359		38
517	Effects of metal oxides addition on the performance of La _{1.3} CaMg _{0.7} Ni ₉ hydrogen storage alloy. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 1304-1309	6.7	13
516	An investigation of the H ₂ uptake in Mg ₂ Nb ₃ O ternary phases. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 3085-3090	6.7	11
515	Synthesis of CuO nanorods and their catalytic activity in the thermal decomposition of ammonium perchlorate. <i>Journal of Alloys and Compounds</i> , 2008 , 464, 532-536	5.7	207
514	Hydrogen spillover in the context of hydrogen storage using solid-state materials. 2008 , 1, 338		116
513	Metal hydrides for lithium-ion batteries. 2008 , 7, 916-21		303
512	Hydrogen storage properties of MgH ₂ -diatomite composites obtained by high-energy ball milling. 2008 , 232, 522-5		9
511	Effects of Carbon-Supported Nickel Catalysts on MgH ₂ Decomposition. 2008 , 112, 5984-5992		53

510	Hydrogen Motion in Magnesium Hydride by NMR. 2008 , 112, 19784-19790		64
509	Hydrogen Technology. <i>Green Energy and Technology</i> , 2008 ,	0.6	33
508	Structure and hydrogen storage properties of MgH ₂ catalysed with La ₂ O ₃ . <i>Journal of Alloys and Compounds</i> , 2008 , 450, 310-313	5.7	45
507	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
506	Investigations on synthesis and hydrogenation properties of Mg ₂₀ wt% Ni ₁₀ wt% TiO ₂ composite prepared by reactive mechanical alloying. <i>Journal of Alloys and Compounds</i> , 2008 , 452, 421-424	5.7	10
505	TEM studies of Nb ₂ O ₅ catalyst in ball-milled MgH ₂ for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2008 , 453, 341-346	5.7	86
504	Effect of NiCo ₂ O ₄ additives on the hydriding properties of magnesium. <i>Journal of Alloys and Compounds</i> , 2008 , 457, 472-476	5.7	9
503	Kinetic investigation of the catalytic effect of a body centered cubic-alloy TiV _{1.1} Mn _{0.9} (BCC) on hydriding/dehydriding properties of magnesium. <i>Journal of Alloys and Compounds</i> , 2008 , 460, 559-564	5.7	18
502	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
501	Reduction of hydrogen desorption temperature of ball-milled MgH ₂ by NbF ₅ addition. <i>Journal of Alloys and Compounds</i> , 2008 , 464, 377-382	5.7	48
500	Influence of TiB ₂ addition upon thermal stability and decomposition temperature of the MgH ₂ hydride of a Mg-based mechanical alloy. <i>Journal of Alloys and Compounds</i> , 2008 , 465, 177-182	5.7	35
499	Dehydriding reaction kinetic mechanism of MgH ₂ -Nb ₂ O ₅ by Chou model. <i>Transactions of Nonferrous Metals Society of China</i> , 2008 , 18, s235-s241	3.3	3
498	X-ray Absorption Studies of Nanocomposites. 2008 , 205-225		
497	Comparison of the Calculated and Experimental Scenarios for Solid-State Reactions Involving Ca(AlH ₄) ₂ . 2008 , 112, 131-138		14
496	Magnesium hydride for hydrogen storage. 2008 , 357-380		4
495	Multicomponent hydrogen storage systems. 2008 , 478-499		2
494	The role of V ₂ O ₅ on the dehydrogenation and hydrogenation in magnesium hydride: An ab initio study. 2008 , 92, 163106		21
493	Interplay of diffusion and dissociation mechanisms during hydrogen absorption in metals. 2008 , 78,		43

492 Hydrogen Functionalized Materials. **2008**, 265-334

491 . **2008**, 201

490 Pengaruh Lama Miling Terhadap Sifat Absorpsi Material Penyimpan Hidrogen MgH₂ yang Dikatalisasi Dengan Fe (The Role of Milling Time on the Absorption Behaviour of MgH₂ Catalyzed by Fe). **2009**, 4,

489 Destabilization of the Mg-H system through elastic constraints. **2009**, 102, 226102 139

488 Atomic hydrogen adsorption and incipient hydrogenation of the Mg(0001) surface: a density-functional theory study. **2009**, 131, 034706 16

487 In-situ Kinetics Studies on Hydrogenation of Transition Metal (=Ti, Fe) Doped Mg Films. **2009**, 1216, 1

486 Microstructural and Kinetic Investigation of Hydrogen Sorption Reaction of MgH₂/Nb₂O₅ Nanopowders. **2009**, 24, 1058-1063 10

485 Investigation of the Transformation of a Modified Iron Oxide Structure During Redox Reaction. **2009**, 193-199

484 Multiparticle Reaction Function of Ball-Milled MgH₂ Powders. *Japanese Journal of Applied Physics*, **2009**, 48, 076511 1.4

483 Evaluations of Hydrogen Properties on MgH_x-Nb₂O₅ Composite by Mechanical Alloying. **2009**, 620-622, 9-12 2

482 Reversible hydrogen storage in metal-doped MgLiBH₄ composites. **2009**, 60, 667-670 25

481 On the nucleation step in the MgMgH₂ phase transformation. **2009**, 61, 1064-1067 41

480 Effect of SEM electron beam on the hydrogen desorption of pre-charged amorphous Cu₃₃Ti₆₇ alloys. **2009**, 60, 26-29 2

479 Going Ultra: How We Can Increase the Length Scales Studied in Small-Angle Neutron Scattering. **2009**, 11, 441-445 6

478 Density functional and dynamics study of the dissociative adsorption of hydrogen on Mg (0 0 0 1) surface. **2009**, 603, 304-310 25

477 Hydride formation in ball-milled and cryomilled MgBe powder mixtures. **2009**, 158, 19-25 30

476 Effects of metal oxides addition on the electrochemical performance of M₁Ni_{3.5}Co_{0.6}Mn_{0.4}Al_{0.5} hydrogen storage alloy. **2009**, 44, 4460-4465 6

475 Mechanochemical methods for the synthesis of new magnesium-based composite materials for hydrogen accumulation. **2009**, 45, 248-257 4

474	Nanoporous polymers for hydrogen storage. 2009 , 5, 1098-111		333
473	Quantitative approach to the understanding of catalytic effect of metal oxides on the desorption reaction of MgH ₂ . 2009 , 109, 2793-2800		10
472	Energetics and electronic properties of Mg ₇ TMH ₁₆ (TM=Sc, Ti, V, Y, Zr, Nb): An ab initio study. 2009 , 404, 2234-2240		34
471	Improvement of MgAl alloys for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 1937-1943	6.7	64
470	Influence of multiple oxide (Cr ₂ O ₃ /Nb ₂ O ₅) addition on the sorption kinetics of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 3032-3037	6.7	82
469	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
468	Engineering the MgMg ₂ Ni eutectic transformation to produce improved hydrogen storage alloys. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 7686-7691	6.7	50
467	Synergetic effect of Ni and Nb ₂ O ₅ on dehydrogenation properties of nanostructured MgH ₂ synthesized by high-energy mechanical alloying. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 7724-7730	6.7	55
466	Formation of Mg ₂ Ni alloy layers and kinetic studies in the binary MgNi system. 2009 , 517, 4745-4748		6
465	Effects of surface dynamic behavior on hydrogen storage properties of sputter-deposited MgNi films. 2009 , 203, 998-1003		7
464	Ultrasonic irradiation as a tool to modify the H-desorption from hydrides: MgH ₂ suspended in decane. 2009 , 16, 810-6		16
463	Absorption of D(g) atoms in ultrathin Mg films and Pd-catalyzed decomposition of MgD ₂ . 2009 , 15, 253-256		
462	Hydrogen storage properties of Mg _x Fe (x: 2, 3 and 15) compounds produced by reactive ball milling. 2009 , 186, 185-193		40
461	Improvement of hydrogen sorption properties of MgH ₂ with various sizes and stoichiometric compositions of TiC. 2009 , 146, 209-215		18
460	Improved Hydrogen Storage in Magnesium Hydride Catalyzed by Nanosized Ti _{0.4} Cr _{0.15} Mn _{0.15} V _{0.3} Alloy. 2009 , 113, 5324-5328		56
459	X-ray Absorption Spectroscopic Study on Valence State and Local Atomic Structure of Transition Metal Oxides Doped in MgH ₂ . 2009 , 113, 13450-13455		55
458	Scanning electron microscopy of partially de-hydrogenated MgH ₂ powders. 2009 , 17, 596-602		25
457	Cyclic hydrogen storage properties of Mg milled with nickel nano-powders and NiO. <i>Journal of Alloys and Compounds</i> , 2009 , 470, 470-472	5.7	17

456	Hydrogen sorption properties of magnesium particles decorated with metallic nanoparticles as catalyst. <i>Journal of Alloys and Compounds</i> , 2009 , 476, 152-159	5-7	42
455	TEM studies of nanostructure in melt-spun MgNiTi alloy manifesting enhanced hydrogen desorbing kinetics. <i>Journal of Alloys and Compounds</i> , 2009 , 478, 308-316	5-7	32
454	Effect on structure and hydrogen storage characteristics of composite alloys Ti _{0.32} Cr _{0.43} V _{0.25} with LaNi ₅ and rare-earth elements La, Ce, Y. <i>Journal of Alloys and Compounds</i> , 2009 , 478, 785-788	5-7	8
453	Study on the electrochemical properties of MgNiTiO hydrogen storage composite materials. <i>Journal of Alloys and Compounds</i> , 2009 , 481, 639-643	5-7	4
452	Hydrogen storage properties of nanocrystalline MgH ₂ and MgH ₂ /Sn nanocomposite synthesized by ball milling. <i>Journal of Alloys and Compounds</i> , 2009 , 484, 939-942	5-7	22
451	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
450	Simple Metal and Intermetallic Hydrides. 2009 , 83-193		
449	Nanomaterials for Solid State Hydrogen Storage. 2009 ,		122
448	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
447	HYDROGEN STORAGE PROPERTY OF Mg-Ni-TiO ₂ -CNTs COMPOSITES. 2009 , 23, 1358-1364		2
446	Nanoscale Materials For Hydrogen and Energy Storage. 2009 , 270-297		1
445	FUELS [HYDROGEN STORAGE High Temperature Hydrides. 2009 , 459-472		6
444	Molecular hydrogen carrier with activated nanohydride and ammonia. 2009 , 24, 2185-2190		37
443	Hydrating behavior of Mg-based nano-layers prepared by pulsed laser deposition. <i>Journal of Physics: Conference Series</i> , 2009 , 146, 012018	0-3	1
442	Pollution Prevention and Treatment Using Nanotechnology. 2010 , 1		9
441	Influence of 3d metal atoms on the geometry, electronic structure, and stability of a Mg ₁₃ H ₂₆ cluster. 2010 , 52, 1992-1998		12
440	LiBH ₄ /SBA-15 Nanocomposites Prepared by Melt Infiltration under Hydrogen Pressure: Synthesis and Hydrogen Sorption Properties. 2010 , 114, 6163-6168		128
439	Studies on metal oxide nanoparticles catalyzed sodium aluminum hydride. 2010 , 35, 5037-5042		44

438	Hydrogenography of Mg ₉ Ni ₁₀ H _x gradient thin films: Interplay between the thermodynamics and kinetics of hydrogenation. 2010 , 58, 658-668		23
437	Effect of metal oxides on electrochemical performances of LaMgNi-based alloys. 2010 , 40, 1683-1687		
436	On the barriers limiting the reaction kinetics between catalysed Mg and hydrogen. 2010 , 63, 456-459		24
435	Nanosizing and nanoconfinement: new strategies towards meeting hydrogen storage goals. 2010 , 3, 1332-48		283
434	Nanoscale Grain Refinement and H-Sorption Properties of MgH ₂ Processed by High-Pressure Torsion and Other Mechanical Routes. 2010 , 12, 786-792		70
433	Metal Hydrides. 2010 , 81-116		8
432	Tailoring Reaction Enthalpies of Hydrides. 2010 , 187-214		9
431	Hydrogen desorption energies of Aluminum hydride (Al _n H _{3n}) clusters. 2010 , 405, 3075-3081		12
430	Enhanced hydrogen sorption kinetics of Mg ₅₀ Ni ₅₀ BH ₄ composite by CeCl ₃ addition. 2010 , 195, 3266-3274		12
429	Microstructural evolution of ball-milled MgH ₂ during a complete dehydrogenation/hydrogenation cycle. 2010 , 195, 6997-7002		22
428	In-situ infrared imaging methodology for measuring heterogeneous growth process of a hydride phase. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 1296-1299	6.7	9
427	Effect of C (graphite) doping on the H ₂ sorption performance of the MgNi storage system. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 1285-1295	6.7	16
426	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
425	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
424	The effect of a Ti-V-based BCC alloy as a catalyst on the hydrogen storage properties of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 6338-6344	6.7	72
423	Synergetic effect of C (graphite) and Nb ₂ O ₅ on the H ₂ sorption properties of the Mg/MgH ₂ system. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 9027-9037	6.7	18
422	The processing of MgNi for hydrogen storage; mechanical milling and plasma synthesis. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 10412-10418	6.7	18
421	. 2010 ,		106

420	Phase Structure and Hydrogen Storage Characterization of the As-Cast Mg-10Ni-2Mm Alloy. 2010 , 650, 150-156		2
419	Metallographic and Numerical Studies of the Role of Catalyst Particles of MgH ₂ -Mg System. 2010 , 297-301, 263-268		
418	Hydrogen Activation Behavior of Commercial Magnesium Processed by Different Severe Plastic Deformation Routes. 2010 , 667-669, 1047-1051		11
417	The TiAl channel mechanism for enhanced (de)hydrogenation kinetics in Mg-based films. 2010 , 97, 111905		12
416	Hydrogen Absorption/Desorption in Nanostructured Fe- and Ti-Doped Mg ₂ Ni Alloys. 2010 , 297-301, 745-756		
415	Pressure-composition isotherm behavior of an Mg ₉₅ Zr ₅ composite synthesized by hydrogen-induced mechanical alloying. 2010 , T139, 014057		
414	Hydrogen in magnesium: new perspectives toward functional stores. 2010 , 3, 526		306
413	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
412	Influence of titanium and vanadium on the hydrogen transport through amorphous alumina films. <i>Journal of Alloys and Compounds</i> , 2010 , 494, 239-244	5-7	1
411	Hydrogen storage in Mg ₉₀ at.% LaNi ₅ nanocomposites, synthesized by ball milling at different conditions. <i>Journal of Alloys and Compounds</i> , 2010 , 495, 149-153	5-7	19
410	Hydrogen desorption kinetics of melt-spun and hydrogenated Mg ₉₀ Ni ₁₀ and Mg ₈₀ Ni ₁₀ Y ₁₀ using in situ synchrotron, X-ray diffraction and thermogravimetry. <i>Journal of Alloys and Compounds</i> , 2010 , 496, 608-613	5-7	53
409	Effect of TiH ₂ and Mg ₂ Ni additives on the hydrogen storage properties of magnesium hydride. <i>Journal of Alloys and Compounds</i> , 2010 , 499, 35-38	5-7	28
408	The effect of high-pressure torsion on the microstructure and hydrogen absorption kinetics of ball-milled Mg ₇₀ Ni ₃₀ . <i>Journal of Alloys and Compounds</i> , 2010 , 504, 83-88	5-7	64
407	Dehydrogenation kinetics of magnesium hydride investigated by DFT and experiment. 2010 , 49, S144-S149		22
406	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
405	Destabilisation of the Li-N-H hydrogen storage system with elemental Si. 2011 , 13, 17683-8		8
404	Thin film metal hydrides for hydrogen storage applications. 2011 , 21, 4021-4026		37
403	Green Energy. 2011 ,		14

402	A new approach to the processing of metal hydrides. <i>Journal of Alloys and Compounds</i> , 2011 , 509, L18-L23	7	51
401	Atomization energy approach to the quantitative evaluation of catalytic activities of metal oxides during dehydrogenation of MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2011 , 509, S612-S615	5-7	4
400	NMR study of metal-hydrogen systems for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2011 , 509, S804-S808	5-7	14
399	Kinetics and modeling study of magnesium hydride with various additives at constant pressure thermodynamic driving forces. <i>Journal of Alloys and Compounds</i> , 2011 , 509, S588-S591	5-7	20
398	Hydrogen storage properties of bulk nanostructured ZK60 Mg alloy processed by Equal Channel Angular Pressing. <i>Journal of Alloys and Compounds</i> , 2011 , 509, S449-S455	5-7	74
397	Nanostructured MgH ₂ prepared by cold rolling and cold forging. <i>Journal of Alloys and Compounds</i> , 2011 , 509, S444-S448	5-7	47
396	Effect of air contamination on ball milling and cold rolling of magnesium hydride. <i>Journal of Alloys and Compounds</i> , 2011 , 509, L175-L179	5-7	28
395	Influence of hydrogen loading conditions on the blocking effect of nanocrystalline Mg films. 2011 , 64, 935-937		20
394	Poly phenylenediamine and its TiO ₂ composite as hydrogen storage material. 2011 , 128, 507-513		7
393	Investigation of the effect of activated carbon and 3d-metal containing additives on the hydrogen sorption properties of magnesium. 2011 , 46, 1772-1776		5
392	Synthesis of a nanostructured MgH ₂ /Ti alloy composite for hydrogen storage via combined vacuum arc remelting and mechanical alloying. 2011 , 65, 1120-1122		17
391	MgH ₂ intermediate scale tank tests under various experimental conditions. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 9719-9726	6-7	56
390	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
389	Destabilization of LiBH ₄ by MH ₂ (M = Ce, La) for hydrogen storage: Nanostructural effects on the hydrogen sorption kinetics. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 15231-15238	6-7	37
388	Hydrogenation of nanostructured alloys and composites based on magnesium. 2011 , 60, 1848-1857		5
387	Hydriding/dehydriding behavior of MgH _x -iron oxides composites. 2011 , 17, 1001-1007		1
386	Hydrogen desorption properties of MgH ₂ /TiCr _{1.2} Fe _{0.6} nanocomposite prepared by high-energy mechanical alloying. 2011 , 196, 4604-4608		38
385	Kinetic rate-limiting steps in dehydrogenation of Li ₂ NH and LiMgNH systems [Effects of elemental Si and Al. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 8335-8343	6-7	26

384	Role of O?H bonding in catalytic activity of Nb2O5 during the course of dehydrogenation of MgH2. 2011 , 111, 2251-2257		7
383	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
382	Hydrogen Storage in Magnesium Hydride: The Molecular Approach. 2011 , 123, 4242-4246		41
381	Hydrogen storage in magnesium hydride: the molecular approach. 2011 , 50, 4156-60		117
380	A comparative study of the role of additive in the MgH2 vs. the LiBH4/MgH2 hydrogen storage system. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 3932-3940	6.7	27
379	Hydrogen sorption properties of Ternary Mg/Nb/D phases synthesized by solid-state reaction. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 7932-7936	6.7	16
378	Thermal desorption of hydrogen from magnesium hydride (MgH2): An in situ microscopy study by environmental SEM and TEM. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 6014-6021	6.7	31
377	Significantly improved dehydrogenation of LiAlH4 catalysed with TiO2 nanopowder. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 8327-8334	6.7	65
376	Characterization of graphite catalytic effect in reactively ball-milled MgH ₂ and Mg composites. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 9051-9061	6.7	35
375	Improvement of Hydrogenation and Dehydrogenation Kinetics on MgH2 by the Catalytic Effect of ZrO2. 2011 , 117-119, 1195-1198		1
374	STUDIES ON TiO2 NANOPARTICLES AS CATALYST FOR ENHANCED DESORPTION CHARACTERISTICS OF NaAlH4. 2011 , 10, 717-721		2
373	Nanostructured Ti-catalyzed MgH2 for hydrogen storage. 2011 , 22, 235401		53
372	Fabrications and Evaluations of Hydrogen Capacities on MgHX-Transition Metal Oxide(TMO) Composites by Mechanical Alloying. 2011 , 695, 259-262		2
371	Superior MgH2 Kinetics with MgO Addition: A Tribological Effect. <i>Catalysts</i> , 2012 , 2, 330-343	4	41
370	Functional materials for hydrogen storage. 2012 , 217-246e		1
369	Relationship between Micro-/Nano-Structure and Stress Development in TM-Doped Mg-Based Alloys Absorbing Hydrogen. 2012 , 194, 237-244		4
368	Microstructural and Kinetic Evolution of Fe Doped MgH2 during H2 Cycling. <i>Catalysts</i> , 2012 , 2, 400-411	4	25
367	Characterization of amorphous Nb oxide and its influence on Mg hydrogen sorption. <i>International Journal of Materials Research</i> , 2012 , 103, 1144-1146	0.5	4

- 366 Significantly Improved Dehydrogenation of LiAlH₄ Destabilized by MnFe₂O₄ Nanoparticles. **2012**, 116, 11939-11945 70
- 365 Effects of BaRuO₃ addition on hydrogen desorption in MgH₂. *Journal of Alloys and Compounds*, **2012**, 536, S216-S221 5.7 36
- 364 Reactive Milling of Magnesium under Hydrogen Using Transition Metals and their Fluorides as Additives. **2012**, 194, 232-236 6
- 363 Microscopic Study of TiF₃ as Hydrogen Storage Catalyst for MgH₂. **2012**, 116, 26027-26035 47
- 362 Extended Solubility Limits and Nanograin Refinement in Ti/Zr Fluoride-Catalyzed MgH₂. **2012**, 116, 2001-2012 38
- 361 Influence of Crystal Structure of Bulk Phase on the Stability of Nanoscale Phases: Investigation on MgH₂ Derived Nanostructures. **2012**, 116, 18965-18972 20
- 360 Effect of TiH₂ Induced Strain on Thermodynamics of Hydrogen Release from MgH₂. **2012**, 116, 2045-2050 47
- 359 Hydrogen storage properties of cold rolled magnesium hydrides with oxides catalysts. *Journal of Alloys and Compounds*, **2012**, 512, 33-38 5.7 24
- 358 Addition of catalysts to magnesium hydride by means of cold rolling. *Journal of Alloys and Compounds*, **2012**, 512, 290-295 5.7 21
- 357 A synchrotron X-ray diffraction study of hydrogen storage and enhanced sorption kinetics in a mini-tank of Mg with crystalline and amorphous catalytic particle additions. *Journal of Alloys and Compounds*, **2012**, 540, 57-61 5.7 6
- 356 Synergistic effect of Ti and F co-doping on dehydrogenation properties of MgH₂ from first-principles calculations. *Journal of Alloys and Compounds*, **2012**, 538, 205-211 5.7 34
- 355 Composite Metal Oxide Nanocatalysts. **2012**, 4, 1462-1484 57
- 354 Hydrogen Desorption from Ti-Doped MgH₂(110) Surfaces: Catalytic Effect on Reaction Pathways and Kinetic Barriers. **2012**, 116, 7874-7878 19
- 353 Dehydrogenation kinetics and modeling studies of MgH₂ enhanced by NbF₅ catalyst using constant pressure thermodynamic forces. *International Journal of Hydrogen Energy*, **2012**, 37, 12301-12306 6.7 11
- 352 Hydrogen storage properties of Mg₉₅Ti₅Ni nanocomposite induced from amorphous precursor with the highest Mg content. *International Journal of Hydrogen Energy*, **2012**, 37, 14329-14335 6.7 65
- 351 Dehydrogenation Kinetics and Modeling Studies of MgH₂ Enhanced by Transition Metal Oxide Catalysts Using Constant Pressure Thermodynamic Driving Forces. **2012**, 2, 219-228 26
- 350 Magnesium-Nickel alloy for hydrogen storage produced by melt spinning followed by cold rolling. **2012**, 15, 813-817 12
- 349 Emerging concepts in solid-state hydrogen storage: the role of nanomaterials design. **2012**, 5, 5951 113

348	Influence of vacant CeO ₂ nanostructured ceramics on MgH ₂ hydrogen desorption properties. 2012 , 38, 1181-1186		33
347	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
346	XPS valence band studies of hydrogen storage nanocomposites. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3659-3664	6.7	23
345	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
344	The catalytic effect of Fe and Cr on hydrogen and deuterium absorption in Mg thin films. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3540-3547	6.7	19
343	The effects of halide modifiers on the sorption kinetics of the Li-Mg-N-H System. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 2742-2749	6.7	23
342	Influence of metal oxide on LiBH ₄ /2LiNH ₂ /MgH ₂ system for hydrogen storage properties. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3292-3297	6.7	24
341	Desorption kinetics of lithium amide/magnesium hydride systems at constant pressure thermodynamic driving forces. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 3298-3304	6.7	30
340	Hydrogen storage of melt-spun amorphous Mg ₆₅ Ni ₂₀ Cu ₅ Y ₁₀ alloy deformed by high-pressure torsion. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 5769-5776	6.7	32
339	Ca ₇ Ge-type hydride Mg ₆ VNaxHy (0 ≤ x ≤ 1): High pressure synthesis, synchrotron X-ray analysis and hydrogen storage properties. 2012 , 210, 158-162		2
338	Accelerated hydrogen desorption from MgH ₂ by high-energy ball-milling with Al ₂ O ₃ . 2012 , 47, 3577-3584		8
337	Thermodynamically destabilized hydride formation in "bulk" Mg-AlTi multilayers for hydrogen storage. 2013 , 15, 16432-6		12
336	A new MgH ₂ tank concept using a phase-change material to store the heat of reaction. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 9766-9771	6.7	70
335	Effects of SnO ₂ on hydrogen desorption of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 4664-4669	6.7	23
334	Structural Properties and Reversible Deuterium Loading of MgD ₂ /TiD ₂ Nanocomposites. 2013 , 117, 18851-18862		39
333	MgH ₂ 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
332	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
331	Metal Oxides. 2013 , 49-116		1

330	McPhy-Energy [®] proposal for solid state hydrogen storage materials and systems. <i>Journal of Alloys and Compounds</i> , 2013 , 580, S343-S348	5-7	42
329	Anode properties of magnesium hydride catalyzed with niobium oxide for an all solid-state lithium-ion battery. 2013 , 49, 7174-6		40
328	First principle investigations of the physical properties of hydrogen-rich MgH ₂ . 2013 , 88, 065704		13
327	Hydrogen sorption enhancement by Nb ₂ O ₅ and Nb catalysts combined with MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2013 , 550, 179-184	5-7	37
326	Mechanically alloyed nanocomposites. 2013 , 58, 383-502		519
325	The catalytic effect of Nb, NbO and Nb ₂ O ₅ with different surface planes on dehydrogenation in MgH ₂ : Density functional theory study. <i>Journal of Alloys and Compounds</i> , 2013 , 580, S25-S28	5-7	18
324	Remarkable decrease in dehydrogenation temperature of LiBH ₄ hydrogen storage system with CoO additive. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 13318-13327	6-7	17
323	Microstructure and hydrogenation kinetics of Mg ₂ Ni-based alloys with addition of Nd, Zn and Ti. <i>Transactions of Nonferrous Metals Society of China</i> , 2013 , 23, 3677-3684	3-3	11
322	Microstructure and hydrogen storage properties of MgH ₂ /TiB ₂ /SiC composites. 2013 , 39, 4399-4405		18
321	H-sorption properties and structural evolution of Mg processed by severe plastic deformation. <i>Journal of Alloys and Compounds</i> , 2013 , 580, S187-S191	5-7	19
320	Influence of VO ₂ nanostructured ceramics on hydrogen desorption properties from magnesium hydride. 2013 , 39, 51-56		24
319	Hydrogen absorption of catalyzed magnesium below room temperature. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 13728-13733	6-7	80
318	Electronic structure and stability of complex hydrides Mg ₂ MH _x (M = Fe, Co). 2013 , 55, 12-20		10
317	Structure and thermodynamic studies of the LaMgNi ₄ compound and its hydrides by density functional theory. 2013 , 38, 30-35		12
316	MgH ₂ Dehydrogenation Thermodynamics: Nanostructuring and Transition Metal Doping. 2013 , 117, 10883-10891		48
315	Microstructural evolution of ball-milled Mg ₉₇ Ni ₃ powder during hydrogen sorption. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 8342-8349	6-7	25
314	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
313	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

312	Phase equilibria in the Mg ₃ Ni system at 500°C and hydrogenation properties of selected alloys. 2013 , 32, 167-175		12
311	Hydrogen sorption properties of MgH ₂ /NaBH ₄ composites. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 12140-12145	6.7	16
310	Effect of the temperature and of the catalyst on the hollow particle formation in the Mg composites. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 12146-12151	6.7	1
309	H ₂ dissociation over NbO: the first step toward hydrogenation of Mg. 2013 , 29, 12059-65		12
308	Nb-Gateway for Hydrogen Desorption in Nb ₂ O ₅ Catalyzed MgH ₂ Nanocomposite. 2013 , 117, 10302-10307		69
307	Construction of real digital microstructures of nanocrystalline materials considering coupled grain size and grain orientation distributions. 2013 , 17, 115-118		3
306	Thermodynamic Tuning of Mg-Based Hydrogen Storage Alloys: A Review. 2013 , 6, 4654-4674		123
305	Innovation Potential of Bulk Nanostructured Materials. 2013 , 415-433		
304	Catalytic Effect of Niobium Oxide on Hydrogen Absorption and Desorption Process for Magnesium. 2013 , 77, 636-640		1
303	Material Demands for Storage Technologies in a Hydrogen Economy. 2013 , 2013, 1-16		15
302	Hydrogen storage properties of Mg ₃ NiO ₂ composite powder prepared by arc plasma method. <i>Transactions of Nonferrous Metals Society of China</i> , 2014 , 24, 3834-3839	3-3	9
301	The Size Dependence of Hydrogen Mobility and Sorption Kinetics for Carbon-Supported MgH ₂ Particles. 2014 , 24, 3604-3611		85
300	Hydrogenation of Nanocrystalline Mg ₂ Ni Alloy Prepared by High Energy Ball-Milling Followed by Equal-Channel Angular Pressing or Cold Rolling. 2014 , 93, 112-117		1
299	Microstructure and kinetics evolution in MgH ₂ /NiO ₂ pellets after hydrogen cycling. <i>Journal of Alloys and Compounds</i> , 2014 , 615, S689-S692	5-7	13
298	Characterization and modification of waste magnesium chip utilized as an Mg-rich intermetallic composite. 2014 , 17, 158-164		7
297	Nanostructured bulk Mg + MgO composite synthesized through arc plasma evaporation and high pressure torsion for H-storage application. 2014 , 183, 1-5		25
296	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
295	Characterization of metal hydrides by in-situ XRD. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 9899-9903	6.7	34

294	MgH ₂ -based nanocomposites prepared by short-time high energy ball milling followed by cold rolling: A new processing route. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 4404-4413	6.7	21
293	Multiphase transformation and hybrid nanostructure under non-equilibrium and equilibrium condition during high-energy ball milling of BaTiO ₃ powders. 2014 , 87, 325-335		6
292	Activation energy in the thermal decomposition of MgH ₂ powders by coupled TG-MS measurements. 2014 , 116, 865-874		2
291	Hydrogen Desorption Properties of the MgH ₂ /AlH ₃ Composites. 2014 , 118, 37-45		60
290	Hydrogen storage of nanocrystalline Mg ₉₀ Ni ₁₀ alloy processed by equal-channel angular pressing and cold rolling. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 9911-9917	6.7	38
289	High glass forming ability correlated with microstructure and hydrogen storage properties of a Mg ₇₀ Ti ₂₀ Ag ₁₀ glass. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 9230-9240	6.7	13
288	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
287	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
286	Hydrogen desorption performance of high-energy ball milled Mg ₂ Ni ₄ catalyzed by multi-walled carbon nanotubes coupling with TiF ₃ . <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 19672-19681	6.7	41
285	Synthesis of catalytically active rock salt structured Mg _x Nb _{1-x} O nanoparticles for MgH ₂ system. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 18984-18988	6.7	12
284	Effect of Mg/Ni ratio on microstructure of Mg ₉₀ Ni ₁₀ films deposited by magnetron sputtering. <i>Journal of Alloys and Compounds</i> , 2014 , 617, 47-51	5.7	4
283	A co-precipitated Mg ₉₀ Ni ₁₀ nano-composite with high capacity and rapid hydrogen absorption kinetics at room temperature. 2014 , 4, 42764-42771		26
282	Beneficial effects of stoichiometry and nanostructure for a LiBH ₄ /MgH ₂ hydrogen storage system. 2014 , 2, 66-72		15
281	Size effects and hydrogen storage properties of Mg nanoparticles synthesised by an electroless reduction method. 2014 , 2, 9718		73
280	Mg ₉₀ TM ₁₀ (TM: Ti, Nb, V, Co, Mo or Ni) core-shell like nanostructures: synthesis, hydrogen storage performance and catalytic mechanism. 2014 , 2, 9645-9655		167
279	A metal-oxide catalyst enhanced the desorption properties in complex metal hydrides. 2014 , 2, 4361-4365		30
278	Probing the highly efficient room temperature ammonia gas sensing properties of a luminescent ZnO nanowire array prepared via an AAO-assisted template route. 2014 , 43, 5713-20		36
277	Characterization of Gas-Solid Reactions using In Situ Powder X-ray Diffraction. 2014 , 640, 3029-3043		28

276	H ₂ Desorption from MgH ₂ Surfaces with Steps and Catalyst-Dopants. 2014 , 118, 6641-6649		9
275	Hydrogen Storage Properties of a MgNi Nanocomposite Coprecipitated from Solution. 2014 , 118, 18401-18411	56	
274	Significantly improved dehydrogenation of ball-milled MgH ₂ doped with CoFe ₂ O ₄ nanoparticles. 2014 , 268, 778-786		39
273	Symbiotic CeH _{2.73} /CeO ₂ catalyst: A novel hydrogen pump. 2014 , 9, 80-87		115
272	Enhanced Hydrogen Storage Kinetics and Stability by Synergistic Effects of in Situ Formed CeH _{2.73} and Ni in CeH _{2.73} -MgH ₂ -Ni Nanocomposites. 2014 , 118, 7808-7820		325
271	Microstructures and Hydrogen Desorption Properties of the MgH ₂ /AlH ₃ Composite with NbF ₅ Addition. 2014 , 118, 18908-18916		22
270	Aluminum integral foams with tailored density profile by adapted blowing agents. 2014 , 115, 651-660		1
269	Development of Ultrafine-Grained Metals by Equal-Channel Angular Pressing. 2014 , 187-209		6
268	Oxide-Nickel electrodes as hydrogen storage units of high-capacity. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 18962-18965	6.7	14
267	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
266	Progress in polymeric material for hydrogen storage application in middle conditions. 2014 , 64, 607-614		23
265	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
264	Hydrogen storage in MgLiBH ₄ composites catalyzed by FeF ₃ . 2014 , 267, 799-811		33
263	Hydrogen Absorption and Desorption Behavior of Magnesium Hydride: Incubation Period and Reaction Mechanism. <i>Materials Transactions</i> , 2014 , 55, 1161-1167	1.3	12
262	Mechanism and kinetics of early transition metal hydrides, oxides, and chlorides to enhance hydrogen release and uptake properties of MgH ₂ . 2015 , 30, S9-S15		17
261	Catalytic efficiency of Nb and Nb oxides for hydrogen dissociation. 2015 , 107, 081602		14
260	In-Situ XAS for Niobium Oxide Catalyst on Hydrogen Absorption and Desorption of Magnesium. 2015 , 79, 107-111		2
259	DFT calculations of hydrogen diffusion and phase transformations in magnesium. <i>Journal of Alloys and Compounds</i> , 2015 , 644, 371-377	5.7	22

258	Anode properties of Al ₂ O ₃ -added MgH ₂ for all-solid-state lithium-ion batteries. 2015 , 19, 3639-3644		15
257	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
256	Significantly improved electrochemical hydrogen storage properties of magnesium nickel hydride modified with nano-nickel. 2015 , 280, 132-140		39
255	Excellent catalytic effects of multi-walled carbon nanotube supported titania on hydrogen storage of a Mg-Ni alloy. 2015 , 51, 2368-71		31
254	Energy Expression of the Chemical Bond Between Atoms in Hydrides and Oxides and Its Application to Materials Design. 2015 , 183-213		1
253	Synthesis and properties of the Mg ₂ Ni _{0.5} Co _{0.5} H _{4.4} hydride. <i>Journal of Alloys and Compounds</i> , 2015 , 645, S408-S411	5-7	7
252	Combination of nanosizing and interfacial effect: Future perspective for designing Mg-based nanomaterials for hydrogen storage. 2015 , 44, 289-303		128
251	Enhanced hydrogen desorption property of MgH ₂ with the addition of cerium fluorides. <i>Journal of Alloys and Compounds</i> , 2015 , 645, S392-S396	5-7	42
250	The role of nickel oxide additive in lowering the carbon dioxide sorption temperature of CaO. 2015 , 24, 225-231		13
249	Reaction kinetic behaviour with relation to crystallite/grain size dependency in the MgSi ₃ system. 2015 , 95, 244-253		23
248	Investigation on hydrogenation performance of Mg ₂ Ni+10 wt.% NbN composite. 2015 , 221, 441-444		3
247	Hydrogen storage properties of MgH ₂ + 20 wt.% Na ₂ WO ₄ composite. 2015 , 72, 197-203		6
246	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
245	Fully interconnected porous Al ₂ O ₃ scaffolds prepared by a fast cooling freeze casting method. 2015 , 41, 11922-11926		20
244	Improved hydrogen storage properties of MgH ₂ by addition of Co ₂ NiO nanoparticles. 2015 , 5, 60983-60989		57
243	Dehydrogenation mechanism of ball-milled MgH ₂ doped with ferrites (CoFe ₂ O ₄ , ZnFe ₂ O ₄ , MnFe ₂ O ₄ and Mn _{0.5} Zn _{0.5} Fe ₂ O ₄) nanoparticles. <i>Journal of Alloys and Compounds</i> , 2015 , 643, 174-180	5-7	30
242	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
241	Hydrogen sorption kinetics of ball-milled MgH ₂ /TiO ₂ based 1D nanomaterials with different morphologies. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 17110-17117	6-7	25

240	Nanometer-scale hydrogen 'portals' for the control of magnesium hydride formation. 2015 , 17, 28977-84		12
239	Improved dehydrogenation cycle performance of the 1.1MgH ₂ -2LiNH ₂ -0.1LiBH ₄ system by addition of LaNi _{4.5} Mn _{0.5} alloy. 2015 , 33, 783-790		10
238	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
237	Nanostructured Mg based hydrogen storage bulk materials prepared by high pressure torsion consolidation of arc plasma evaporated ultrafine powders. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 16985-16991	6.7	40
236	Effect of Synthesized MgNi ₄ Y Catalyst on Hydrogen Desorption Properties of Milled MgH ₂ . 2015 , 2, 27-32		
235	Study on hydrogen storage properties of MgX (X = Fe, Co, V) nano-composites co-precipitated from solution. 2015 , 5, 7687-7696		25
234	The DV-X α Molecular-Orbital Calculation Method. 2015 ,		1
233	Absorption kinetics and hydride formation in magnesium films: Effect of driving force revisited. 2015 , 85, 279-289		39
232	The new ternary intermetallic NdNiMg ₅ : Hydrogen sorption properties and more. 2015 , 61, 275-279		11
231	Catalytic effect of nano-sized ScH ₂ on the hydrogen storage of mechanically milled MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2015 , 622, 842-850	5.7	16
230	A review of catalyst-enhanced magnesium hydride as a hydrogen storage material. 2015 , 84, 96-106		187
229	Effect of Alloying Elements in Melt Spun Mg-alloys for Hydrogen Storage. 2016 , 19, 20-26		
228	A review on the current progress of metal hydrides material for solid-state hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 12108-12126	6.7	478
227	The synergistic effect of catalysts on hydrogen desorption properties of MgH ₂ /TiO ₂ /NiO nanocomposite. 2016 , 5, 1		5
226	Mg/Ti nanoparticles with superior kinetics for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 14447-14454	6.7	44
225	Characterization of a nanocrystalline Mg/Ti alloy processed by high-pressure torsion during hydrogenation and dehydrogenation. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 9803-9809	6.7	16
224	Thermal Resistance and the Kinetics of Hydrogen Desorption from Hydrides of the Mg ₂ AlNiTi Mechanical Alloy. 2016 , 51, 457-464		3
223	Hydrogen Storage. 2016 , 567-638		

- 222 Fe₃O₄@graphene as a superior catalyst for hydrogen de/absorption from/in MgH₂/Mg. **2016**, 4, 14761-14772 88
- 221 Synthesis, characterization and catalytic potential of MgNiO₂ nanoparticles obtained from a novel [MgNi(opba)]_nH₂O chain. **2016**, 42, 13635-13641 7
- 220 Influence of Titanium and Iron Additives to Magnesium on Hydrogen-Sorption Properties, Thermal Stability, and Kinetics of Hydrogen Desorption from MgH₂ Phase of Mechanical Alloy. **2016**, 55, 477-488 5
- 219 Crystal structure, phase stoichiometry and chemical environment of Mg_xNb_yO_{x+y} nanoparticles and their impact on hydrogen storage in MgH₂. *International Journal of Hydrogen Energy*, **2016**, 41, 11709-11715¹⁶
- 218 Elastic airtight container for the compaction of air-sensitive materials. **2016**, 87, 063908 1
- 217 Chloride catalytic effect on hydrogen desorption in NaAlH₄. *International Journal of Hydrogen Energy*, **2016**, 41, 8271-8276 6.7 10
- 216 Formation of Mg_nNb₂O₅ (n=0.083-0.50) mixtures. *International Journal of Hydrogen Energy*, **2016**, 41, 2677-2688 6.7 20
- 215 Severely deformed ZK60+2.5% Mm alloy for hydrogen storage produced by two different processing routes. *International Journal of Hydrogen Energy*, **2016**, 41, 11284-11292 6.7 21
- 214 Review of magnesium hydride-based materials: development and optimisation. **2016**, 122, 1 212
- 213 Catalytic effect of Nb₂O₅ on dehydrogenation kinetics of NaAlH₄. *International Journal of Hydrogen Energy*, **2016**, 41, 8264-8270 6.7 9
- 212 Fast hydrogen sorption from MgH₂/VO₂(B) composite materials. **2016**, 307, 481-488 56
- 211 Gas-phase synthesis of Mg-Ti nanoparticles for solid-state hydrogen storage. **2016**, 18, 141-8 26
- 210 Formation of Mg_xNb_yO_{x+y} through the Mechanochemical Reaction of MgH₂ and Nb₂O₅, and Its Effect on the Hydrogen-Storage Behavior of MgH₂. **2016**, 17, 178-83 20
- 209 Recent progress in magnesium borohydride Mg(BH₄)₂: Fundamentals and applications for energy storage. *International Journal of Hydrogen Energy*, **2016**, 41, 14387-14403 6.7 85
- 208 Hydrogen storage in heavily deformed ZK60 alloy modified with 2.5wt.% Mm addition. *International Journal of Hydrogen Energy*, **2016**, 41, 4177-4184 6.7 16
- 207 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
- 206 Delaminated MoS₂ as a structural and functional modifier for MgH₂ [Better hydrogen desorption kinetics through induced worm-like morphologies. *International Journal of Hydrogen Energy*, **2016**, 41, 3551-3560 6.7 5
- 205 Catalytic activity of titania polymorphs towards desorption reaction of MgH₂. *International Journal of Hydrogen Energy*, **2016**, 41, 4703-4711 6.7 8

204	Effect of Na ₃ FeF ₆ catalyst on the hydrogen storage properties of MgH ₂ . 2016 , 45, 7085-93		55
203	Improving the hydrogenation properties of MgH ₂ at room temperature by doping with nano-size ZrO ₂ catalyst. <i>Journal of Alloys and Compounds</i> , 2016 , 655, 21-27	5-7	54
202	Synthesis and hydrogen absorption/desorption properties of Mg _{1-x} Ni _x O ₅ -SWCNT/MWCNT nanocomposite prepared by reactive milling. <i>Journal of Alloys and Compounds</i> , 2016 , 656, 835-842	5-7	17
201	Tuning kinetics and thermodynamics of hydrogen storage in light metal element based systems: A review of recent progress. <i>Journal of Alloys and Compounds</i> , 2016 , 658, 280-300	5-7	186
200	Synthesis of CuO nanopowders by high-energy ball-milling method and investigation of their catalytic activity on thermal decomposition of ammonium perchlorate particles. 2016 , 123, 1213-1224		39
199	Kinetic enhancement of the sorption properties of MgH ₂ with the additive titanium isopropoxide. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 5227-5234	6-7	15
198	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
197	Temperature programmed analysis of hydrogenation and dehydrogenation of magnesium (Mg), nickel (Ni) and aluminum (Al) containing mixed oxides. 2017 , 118, 103-111		3
196	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
195	Enhanced hydrogen storage properties of MgH ₂ with numerous hydrogen diffusion channels provided by Na ₂ Ti ₃ O ₇ nanotubes. 2017 , 5, 6178-6185		69
194	Dehydrogenation-hydrogenation characteristics of nanocrystalline Mg ₂ Ni powders compacted by high-pressure torsion. <i>Journal of Alloys and Compounds</i> , 2017 , 702, 84-91	5-7	29
193	Recent advances in additive-enhanced magnesium hydride for hydrogen storage. 2017 , 27, 41-49		113
192	Research on microstructure and catalysis properties of nanosized Ce _{1-x} (Fe _{0.5} Eu _{0.5}) _x O ₂ solid solutions. 2017 , 35, 63-70		10
191	Effect of BiVO ₄ additive on the hydrogen storage properties of MgH ₂ . 2017 , 89, 197-203		22
190	The effect of ZnO addition on the electrochemical properties of the LaNi _{3.55} Mn _{0.4} Al _{0.3} Co _{0.2} Fe _{0.55} electrode used in nickel-metal hydride batteries. 2017 , 21, 1157-1164		8
189	Role of chemical interaction between MgH ₂ and TiO ₂ additive on the hydrogen storage behavior of MgH ₂ . 2017 , 420, 740-745		35
188	Nanostructured Materials for Next-Generation Energy Storage and Conversion. 2017 ,		4
187	Effect of initial powder type on the hydrogen storage properties of high-pressure torsion consolidated Mg. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 22438-22448	6-7	21

186	Functionalised hybrid Poly(ether ether ketone) containing MnO ₂ : Investigation of operative conditions for hydrogen sorption. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 10089-10098	6.7	5
185	Electrochemical hydriding of Mg-Ni alloys compacted by spark plasma sintering. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 23908-23914	6.7	3
184	Current research trends and perspectives on materials-based hydrogen storage solutions: A critical review. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 289-311	6.7	257
183	Iron and niobium based additives in magnesium hydride: Microstructure and hydrogen storage properties. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 6810-6819	6.7	46
182	Hydrogen production via hydrolysis of Mg-oxide composites. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 22305-22311	6.7	99
181	Evolution of reduced Ti containing phase(s) in MgH ₂ /TiO ₂ system and its effect on the hydrogen storage behavior of MgH ₂ . 2017 , 362, 174-183		52
180	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
179	Graphene/silver nanocomposites stabilize Mg-Ni-La electrode alloys and enhance electrochemical performance. <i>Journal of Alloys and Compounds</i> , 2017 , 694, 1140-1148	5.7	21
178	Dehydrogenation Properties of Magnesium Hydride Loaded with Fe, Fe-C, and Fe-Mg Additives. 2017 , 18, 287-291		8
177	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
176	Pocket Electrodes as Hydrogen Storage Units of High-Capacity. 2017 , 164, A2555-A2558		11
175	A Critical Review of Mg-Based Hydrogen Storage Materials Processed by Equal Channel Angular Pressing. 2017 , 7, 324		32
174	Hydrogen production, storage, transportation and key challenges with applications: A review. 2018 , 165, 602-627		477
173	A comparison study of hydrogen storage properties of as-milled Sm ₅ Mg ₄₁ alloy catalyzed by CoS ₂ and MoS ₂ nano-particles. 2018 , 34, 1851-1858		19
172	Improved optical properties of switchable mirrors based on Pd/Mg-TiO ₂ films fabricated by magnetron sputtering. 2018 , 144, 256-262		7
171	Non-resonant enhancement mechanism in SERS effect due to copper oxide quantum dots stabilized in synthetic zeolite F9-NaX. 2018 , 211, 150-159		4
170	Hydrogen sorbing magnesium alloys and composites. 2018 , 67, 193-199		6
169	Exploring pristine and Li-doped Mg ₂ NiH ₄ compounds with potential lithium-storage properties: Ab initio insight. <i>Journal of Alloys and Compounds</i> , 2018 , 746, 140-146	5.7	6

168	Tailoring magnesium based materials for hydrogen storage through synthesis: Current state of the art. 2018 , 10, 168-198		174
167	Progress and Trends in Magnesium-Based Materials for Energy-Storage Research: A Review. <i>Energy Technology</i> , 2018 , 6, 445-458	3.5	104
166	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
165	Molecular Magnesium Hydrides. 2018 , 57, 1458-1473		64
164	Fabrication of MgO and ZnO nanoparticles by the aid of eggshell bioactive membrane and exploring their catalytic activities on thermal decomposition of ammonium perchlorate. 2018 , 131, 2913-2924	21	
163	Catalytic Tuning of Sorption Kinetics of Lightweight Hydrides: A Review of the Materials and Mechanism. <i>Catalysts</i> , 2018 , 8, 651	4	21
162	Molekulare Magnesiumhydride. 2018 , 130, 1472-1488		19
161	Hydrogen Insertion in the Intermetallic GdScGe: A Drastic Reduction of the Dimensionality of the Magnetic and Transport Properties. 2018 , 57, 14230-14239		4
160	Bulk nanocomposite MgH ₂ /10 wt% (8 Nb ₂ O ₅ /2 Ni) solid-hydrogen storage system for fuel cell applications. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 23382-23396	6.7	18
159	A novel complex oxide TiVO _{3.5} as a highly active catalytic precursor for improving the hydrogen storage properties of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 23327-23335	6.7	43
158	Metal oxides for hydrogen storage. 2018 , 251-274		7
157	The Structural and Electrochemical Effects of N-Heterocyclic Carbene Monolayers on Magnesium. 2018 , 165, G139-G145		5
156	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
155	Hydrogen storage in MgH ₂ LaNi ₅ composites prepared by cold rolling under inert atmosphere. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 13348-13355	6.7	16
154	Metal hydrides for lithium-ion battery application: A review. <i>Journal of Alloys and Compounds</i> , 2018 , 769, 167-185	5.7	26
153	Electrochemical Method of Hydrogenation/Dehydrogenation of Metal Hydrides. 2018 , 147-176		
152	Enhanced hydrogen storage properties of MgH ₂ catalyzed with carbon-supported nanocrystalline TiO ₂ . 2018 , 398, 183-192		113
151	Stability, Electronic Structure, and Dehydrogenation Properties of Pristine and Doped 2D MgH ₂ by the First Principles Study. 2018 , 8, 482		3

150	Vanadium oxide nanoparticles supported on cubic carbon nanoboxes as highly active catalyst precursors for hydrogen storage in MgH ₂ . 2018 , 6, 16177-16185		71
149	MgH ₂ -SiC based hydrogen storage material prepared by reactive mechanical alloying method. 2018 , 105, 012098		6
148	Synthesis of NaAlH ₄ /Al composites and their applications in hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 17309-17317	6.7	17
147	Catalysis and Downsizing in Mg-Based Hydrogen Storage Materials. <i>Catalysts</i> , 2018 , 8, 89	4	35
146	Hydrogen kinetics studies of MgH ₂ -FeTi composites. 2018 ,		1
145	A novel solid-solution MXene (Ti _{0.5} V _{0.5}) ₃ C ₂ with high catalytic activity for hydrogen storage in MgH ₂ . 2018 , 1, 114-120		32
144	The hydrogen storage properties and catalytic mechanism of the CuFe ₂ O ₄ -doped MgH ₂ composite system. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 318-324	6.7	62
143	Enhanced hydrogen sorption properties of core-shell like structured Mg@NaBH ₄ /MgB ₂ composite. <i>Journal of Alloys and Compounds</i> , 2019 , 810, 151763	5.7	7
142	An overview of progress in Mg-based hydrogen storage films. 2019 , 28, 098801		4
141	Using Ball Milling for Modification of the Hydrogenation/Dehydrogenation Process in Magnesium-Based Hydrogen Storage Materials: An Overview. 2019 , 9, 768		19
140	MgH ₂ /TiF ₄ -MWCNTs based hydrogen storage tank with central tube heat exchanger. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 20173-20182	6.7	9
139	Lightweight hydrides nanocomposites for hydrogen storage: Challenges, progress and prospects. 2019 , 62, 1597-1625		22
138	Effect of catalysts on microstructure, hydrogen storage thermodynamics, and kinetics performance of La ₅ Mg ₈₅ Ni ₁₀ alloy. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 24839-24848	6.7	1
137	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
136	How to Design Hydrogen Storage Materials? Fundamentals, Synthesis, and Storage Tanks. 2019 , 3, 1900043		48
135	Study on nanostructured MgH ₂ with Fe and its oxides for hydrogen storage applications. <i>Journal of Alloys and Compounds</i> , 2019 , 801, 188-191	5.7	29
134	Fabrication and optical property improvement of gasochromic switchable mirror based on Pd/MgNb ₂ O ₅ thin film. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 15205-15217	6.7	9
133	Highly dispersed metal nanoparticles on TiO ₂ acted as nano redox reactor and its synergistic catalysis on the hydrogen storage properties of magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 15100-15109	6.7	18

132	Excellent catalysis of TiO nanosheets with high-surface-energy {001} facets on the hydrogen storage properties of MgH. 2019 , 11, 7465-7473		52
131	Recent advances in anion-doped metal oxides for catalytic applications. 2019 , 7, 7280-7300		76
130	MgCNi ₃ prepared by powder metallurgy for improved hydrogen storage properties of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 8347-8356	6.7	15
129	Effect of rGO supported NiCu derived from layered double hydroxide on hydrogen sorption kinetics of MgH ₂ . <i>Journal of Alloys and Compounds</i> , 2019 , 789, 768-776	5.7	30
128	Influence of adding nano-graphite powders on the microstructure and gas hydrogen storage properties of ball-milled Mg ₉₀ Al ₁₀ alloys. 2019 , 149, 93-104		9
127	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
126	Metal Hydrides for Energy Storage. 2019 , 775-810		2
125	Metal Oxide Additives Incorporated Hydrogen Storage Systems: Formation of In Situ Catalysts and Mechanistic Understanding. 2019 , 215-245		1
124	Excellent catalysis of MoO ₃ on the hydrogen sorption of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 29249-29254	6.7	24
123	Modifying the hydrogen storage performances of NaBH ₄ by catalyzing with MgFe ₂ O ₄ synthesized via hydrothermal method. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 6720-6727	6.7	12
122	Hydrogen Release from Magnesium Hydride Subjected to Uniaxial Pressing. 2019 , 54, 810-818		1
121	Kinetics in Mg-based hydrogen storage materials: Enhancement and mechanism. <i>Journal of Magnesium and Alloys</i> , 2019 , 7, 58-71	8.8	153
120	Chemically transformed additive phases in Mg ₂ TiO ₄ and MgTiO ₃ loaded hydrogen storage system MgH ₂ . 2019 , 472, 99-104		12
119	DFT study of boron doped MgH ₂ : Bonding mechanism, hydrogen diffusion and desorption. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 7947-7957	6.7	9
118	The influence of mechanical milling parameters on hydrogen desorption from MgH ₂ -W _o ₃ composites. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 7901-7911	6.7	2
117	The variation of microstructures, spectral characteristics and catalysis effects of Fe ³⁺ and Zn ²⁺ co-doped CeO ₂ solid solutions. 2020 , 38, 241-249		3
116	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
115	Thermodynamics and kinetics of phase transformation in rare earth-magnesium alloys: A critical review. 2020 , 44, 171-190		200

114	LaFeO ₃ synthesised by solid-state method for enhanced sorption properties of MgH ₂ . 2020 , 16, 102844		44
113	Synergistic Catalytic Mechanism between Ni and Carbon Aerogel for Dehydrogenation of Mg-Based Hydrides. 2020 , 34, 10232-10240		5
112	Hydrogen Storage Properties of Mg-Ni Alloys Processed by Fast Forging. 2020 , 13, 3509		5
111	Highly stable CO ₂ capture performance of binary doped carbide slag synthesized through liquid precipitation method. 2020 , 280, 118575		8
110	Hydrogenation Properties of MgCuY with Long Period Stacking Ordered Structure and Formation of Polymorphic ϵ MgH. 2020 , 59, 14263-14274		1
109	First-principles calculations into LiAl(NH ₂) ₄ and its derivative hydrides for potential sodium storage. 2020 , 19, 103408		2
108	Synergistic effect of rGO supported Ni ₃ Fe on hydrogen storage performance of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 16622-16633	6.7	30
107	Bi-doping improves the magnetic properties of zinc oxide nanowires.. 2020 , 10, 23297-23311		22
106	Mechanically induced-catalyzation for improving the behavior of MgH ₂ . 2020 , 263-291		
105	Hydrogen storage in light-metal based systems: A review. <i>Journal of Alloys and Compounds</i> , 2020 , 829, 154597	5.7	61
104	Direct Microstructural Evidence on the Catalyzing Mechanism for De/hydrogenation of Mg by Multi-valence NbOx. 2020 , 124, 6571-6579		3
103	Magnesium-based hydrogen storage compounds: A review. <i>Journal of Alloys and Compounds</i> , 2020 , 832, 154865	5.7	84
102	In situ catalyzed and nanoconfined magnesium hydride nanocrystals in a Ni-MOF scaffold for hydrogen storage. 2020 , 4, 4694-4703		7
101	Investigation of dehydrogenation performance and air stability of MgH ₂ @MMA nanostructured composite prepared by direct high-energy ball-milling. 2020 , 9, 1		4
100	Insights into 2D graphene-like TiO ₂ (B) nanosheets as highly efficient catalyst for improved low-temperature hydrogen storage properties of MgH ₂ . 2020 , 16, 100411		14
99	Fast hydrogen absorption/desorption kinetics in reactive milled Mg-8 mol% Fe nanocomposites. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 12408-12418	6.7	16
98	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
97	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

96	The potential of hydrogen hydrate as a future hydrogen storage medium. 2021 , 24, 101907		11
95	Effect of ball milling and iron mixing on structural and morphological properties of magnesium for hydrogen storage application. 2021 , 42, 1673-1677		2
94	Radio Frequency Plasma-Based Synthesis of Metallic Nanoparticles for Biomedical Application. 2021 , 421-447		0
93	On-Board and Off-Board Technologies for Hydrogen Storage. 2021 , 139-165		
92	High-Pressure Torsion of Non-Equilibrium Hydrogen Storage Materials: A Review. 2021 , 14, 819		7
91	Effect of BaO on Hydrogen Sorption Performance of MgAl: Experimental and Theoretical Studies. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 11901-11910	9.5	2
90	The Mg/MAX-phase composite for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 7274-7274	6.7	5
89	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
88	Thermally-assisted milling and hydrogenolysis for synthesizing ultrafine MgH ₂ with destabilized thermodynamics. 2021 , 32,		3
87	Roles of Ti-Based Catalysts on Magnesium Hydride and Its Hydrogen Storage Properties. 2021 , 9, 36		8
86	200 NL H ₂ hydrogen storage tank using MgH ₂ /TiH ₂ nanocomposite as H storage material. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 19046-19059	6.7	5
85	Enhanced Hydrogen Storage Performance of MgH ₂ by the Catalysis of a Novel Intersected Y ₂ O ₃ /NiO Hybrid. 2021 , 9, 892		10
84	Optical, electrical and structural study of Mg/Ti bilayer thin film for hydrogen storage applications. 2021 , 10, 100076		1
83	Nickel-cadmium batteries with pocket electrodes as hydrogen energy storage units of high-capacity. 2021 , 39, 102597		6
82	Synthetic approach of ternary magnesium niobate (Mg-Nb-O) compounds. 2021 , 11, 16065		
81	?????????????. 2021 ,		
80	Theoretical investigation of the surface orientation impact on the hydrogen vacancy formation of MgH ₂ . 2021 , 710, 121850		0
79	Improved hydrogen storage properties of MgH ₂ using transition metal sulfides as catalyst. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 27107-27118	6.7	13

78	Mg-based materials for hydrogen storage. <i>Journal of Magnesium and Alloys</i> , 2021 , 9, 1837-1837	8.8	18
77	Catalytic Activities of Various Niobium Oxides for Hydrogen Absorption/Desorption Reactions of Magnesium. 2021 , 6, 23564-23569		3
76	Progress of graphene and loaded transition metals on Mg-based hydrogen storage alloys. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 33468-33485	6.7	3
75	Effect of driving force on the activation energies for dehydrogenation and hydrogenation of catalyzed MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 37986-37986	6.7	2
74	Chemical transformation of additive phase in MgH ₂ /CeO ₂ hydrogen storage system and its effect on catalytic performance. 2021 , 561, 150062		2
73	Enhance Mg-based heat storage materials kinetics by complex oxides. 2021 , 29, 102767		
72	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
71	Hydrogen absorption performance and mechanism of low-temperature activated Ti-Co-Ce bulk getter. <i>Journal of Alloys and Compounds</i> , 2021 , 888, 161541	5.7	2
70	Nano-Structured Materials for a Hydrogen Economy. 2005 , 251-258		3
69	Metal Hydrides for Energy Storage. 2018 , 1-36		2
68	Mössbauer study of Mg-Ni(Fe) alloys processed as materials for solid state hydrogen storage. 2006 , 1029-1035		1
67	Hydrogen Storage. <i>Green Energy and Technology</i> , 2008 , 81-128	0.6	5
66	Hydrogen Storage Technologies. 2017 , 117-142		3
65	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
64	Tailoring nanocrystalline materials towards potential applications. 2003 , 94, 610-614		9
63	TiCl ₃ and Ni-added Mg prepared by reactive mechanical grinding processing and comparison with Fe ₂ O ₃ and Ni-added Mg. 2019 , 20, 173-181		1
62	Effects of Metal Oxide Additives on Anode Properties of Magnesium Hydride for All-Solid-State Lithium Ion Batteries. 2014 , 93, 926-930		5
61	The Structures and Properties of Y-Substituted Mg₂/sub>Ni Alloys and Their Hydrides: A First-Principles Study. 2016 , 07, 67-74		4

60	Reversible chemical hydrogen storage in borohydrides via thermolysis and hydrolysis: Recent advances, challenges, and perspectives. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	1
59	Improved H-Storage Performance of Novel Mg-Based Nanocomposites Prepared by High-Energy Ball Milling: A Review. 2021 , 14, 6400		4
58	Hydrogen storage behaviors of magnesium hydride catalyzed by transition metal carbides. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	3
57	Hydriding Properties of Magnesium-Salt Mechanical Alloys. 2004 , 489-502		
56	Nanocrystalline light metal hydrides for hydrogen storage. 2006 , 266-302		
55	Mechanical Alloying and Severe Plastic Deformation. 2007 , 13-1-13-28		
54	Nanostructured Hydrides for Solid State Hydrogen Storage for Vehicular Applications. 2011 , 223-286		
53	Evaluations of Hydrogen Properties of MgHx-Nb2O5Oxide Composite by Hydrogen Induced Mechanical Alloying. <i>Transactions of the Korean Hydrogen and New Energy Society</i> , 2012 , 23, 429-436	0.5	
52	Magnesium and Doped Magnesium Nanostructured Materials for Hydrogen Storage. <i>Green Energy and Technology</i> , 2014 , 297-319	0.6	
51	Introduction. <i>Springer Theses</i> , 2016 , 1-40	0.1	
50	Introduction to hydrogen storage in carbon materials. 2018 , 333-341		
49	Thermodynamic and kinetic properties of Mg-based compounds. 2018 , 24-38		
48	From Nanomaterials and Nanotechnologies to the Alternative Energy. <i>Progress in Physics of Metals</i> , 2018 , 19, 442-486	1.6	0
47	Hydrogen Sorption Properties, Thermal Stability and Kinetics of Hydrogen Desorption from MgH ₂ Hydride Phase of a Mechanical Alloy of Magnesium with Ti and Y. <i>Metallofizika I Noveishie Tekhnologii</i> , 2019 , 41, 981-1001	0.5	1
46	Nanostructured advanced materials for hydrogen storage. 2020 , 97-163		1
45	Temperature- and Catalyst-Dependent Transformation from Reaction Rate-Limited to Diffusion Rate-Limited Hydrogenation of Mg with Nb2O5 Catalyst. <i>Materials Transactions</i> , 2020 , 61, 787-794	1.3	
44	Effect of Mn And Zr on Hydrogen Absorption in Mg-Based Nanocomposites. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2008 , 497-502	0.3	
43	Characterization of amorphous Nb oxide and its influence on Mg hydrogen sorption. <i>International Journal of Materials Research</i> , 103, 1144-1146	0.5	

42	Room temperature conversion of Mg to MgH ₂ assisted by low fractions of additives. <i>International Journal of Hydrogen Energy</i> , 2021 ,	6.7	2
41	Remarkable catalytic effect of Ni and ZrO ₂ nanoparticles on the hydrogen sorption properties of MgH ₂ . <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 4716-4716	6.7	3
40	Light-weight solid-state hydrogen storage materials characterized by neutron scattering. <i>Journal of Alloys and Compounds</i> , 2022 , 899, 163254	5.7	2
39	Mechanical alloying fabrication of nickel/cerium/MgH ₂ nanocomposite for hydrogen storage: Molecular dynamics study and experimental verification. <i>Journal of Alloys and Compounds</i> , 2022 , 899, 163280	5.7	2
38	Research of Nanomaterials as Electrodes for Electrochemical Energy Storage.. <i>Molecules</i> , 2022 , 27,	4.8	0
37	Recent developments in properties and applications of metal oxides. 2022 , 95-111		0
36	Tailoring nanocrystalline materials towards potential applications. <i>International Journal of Materials Research</i> , 2022 , 94, 610-614	0.5	
35	Room Temperature Hydrogen Absorption of V ₂ O ₅ Catalyzed MgH ₂ /Mg?. <i>Acta Chimica Sinica</i> , 2022 , 80, 303	3.3	0
34	Recent advances in metastable alloys for hydrogen storage: a review. <i>Rare Metals</i> , 1	5.5	7
33	Effect of hydrogen ion dose and sample temperature on hydrogenation of Mg oxides using microwave excited hydrogen plasma. <i>Japanese Journal of Applied Physics</i> ,	1.4	
32	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
31	Mn nanoparticles enhanced dehydrogenation and hydrogenation kinetics of MgH ₂ for hydrogen storage. <i>Transactions of Nonferrous Metals Society of China</i> , 2021 , 31, 3469-3477	3.3	4
30	Active catalytic species generated in situ in zirconia incorporated hydrogen storage material magnesium hydride. <i>Journal of Magnesium and Alloys</i> , 2021 ,	8.8	1
29	Notable catalytic activity of CuO nanoparticles derived from metal-organic frameworks for improving the hydrogen sorption properties of MgH ₂ . <i>International Journal of Energy Research</i> ,	4.5	0
28	Enhancement in hydrogenation properties of ball-milled AB ₅ -type hydrogen storage alloy through catalyst. <i>Journal of Physics: Conference Series</i> , 2022 , 2267, 012052	0.3	
27	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
26	Magnesium- and intermetallic alloys-based hydrides for energy storage: modelling, synthesis and properties. <i>Progress in Energy</i> , 2022 , 4, 032007	7.7	1
25	Hydrogen Diffusion on, into and in Magnesium Probed by DFT: A Review. <i>Hydrogen</i> , 2022 , 3, 285-302	1.8	0

24	Elucidating Evidence for the In Situ Reduction of Graphene Oxide by Magnesium Hydride and the Consequence of Reduction on Hydrogen Storage. <i>Catalysts</i> , 2022 , 12, 735	4	0
23	Synergistic Effect of a Facilely Synthesized MnV ₂ O ₆ Catalyst on Improving the Low-Temperature Kinetic Properties of MgH ₂ . <i>ACS Applied Materials & Interfaces</i> ,	9.5	1
22	Catalysis in Solid Hydrogen Storage: Recent Advances, Challenges and Perspectives. <i>Energy Technology</i> ,	3.5	2
21	Cu ₂ O-Decorated Marigold Hollow Alumina Microsphere Nanoparticles as a Robust and Efficient Catalyst for the Synthesis of Isoquinolones. <i>ACS Sustainable Chemistry and Engineering</i> ,	8.3	0
20	Regulation of Kinetic Properties of Chemical Hydrogen Absorption and Desorption by Cubic K ₂ MoO ₄ on Magnesium Hydride. 2022 , 12, 2468		0
19	The effects of crystalline defects on hydrogen absorption kinetics of catalyzed MgH ₂ at ambient conditions. 2022 , 927, 167090		1
18	Recent Advances and Reliable Assessment of Solid-State Materials for Hydrogen Storage: A Step Forward toward a Sustainable H ₂ Economy. 2200276		0
17	Facile synthesis of nickel-vanadium bimetallic oxide and its catalytic effects on the hydrogen storage properties of magnesium hydride. 2022 , 47, 32969-32980		1
16	Chemisorption solid materials for hydrogen storage near ambient temperature: a review.		0
15	A Promising Energy Storage System Based on High-Capacity Metal Hydrides. 2022 , 15, 7871		0
14	Tailoring MgH ₂ for hydrogen storage through nanoengineering and catalysis. 2022 ,		1
13	Low-Temperature Dehydrogenation of Vapor-Deposited Magnesium Borohydrides Imaged Using Identical Location Microscopy. 2022 , 126, 19024-19034		0
12	The study on synergetic catalytic mechanism of (V-CsF) additives in Mg-V-CsF H-storage systems. 2022 , 168133		0
11	Improved hydrogen storage performance of Sm-Mg composites by adding nano-graphite. 2022 , 168144		0
10	Hydrogen desorption characteristics of Mg hydride films with Ni and Ni-based alloy catalyst layers deposited by magnetron sputtering. 2023 , 764, 139628		0
9	Influence of the phase evolution and hydrogen storage behaviors of Mg-RE alloy by a multi-valence Mo-based catalyst. 2023 , 58, 106397		1
8	Characterizing hydrogen storage behavior of Mg-based materials catalyzed by S ₂ and O ₂ ions. 2023 , 174, 111153		0
7	Structural, optical and electrical characterizations of Mg/Ti/Ni multilayer thin films deposited by DC magnetron sputtering for hydrogen storage. 2022 ,		0

- 6 TiVNb-based high entropy alloys as catalysts for enhanced hydrogen storage in nanostructured MgH₂. **2023**, 11, 4789-4800 ○
- 5 Hydrogen absorption-desorption properties and hydrolysis performance of MgH₂-Zr₃V₃O_{0.6}Hx and MgH₂-Zr₃V₃O_{0.6}Hx-C composites. **2023**, 65, 107245 ○
- 4 Recent developments in state-of-the-art hydrogen energy technologies [Review of hydrogen storage materials. **2023**, 5, 100033 ○
- 3 Magnesium metal nano composites- A solid state hydrogen storage material. **2023**, ○
- 2 Recent Advances and Challenges of Anodes for Aqueous Alkaline Batteries. **2023**, 100102 ○
- 1 Hydrogen storage properties of MgH₂∥m: Ni-catalysis vs. mechanical milling. **2023**, ○