(LiNH2MgH2): a viable hydrogen storage system

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#	Paper	IF	Citations
454	??????????????. **2005**, 44, 192-196		
453	Guidelines for Developing Amide-Based Hydrogen Storage Materials. **2005**, 46, 2093-2097		39
452	Development of Hydrogen Absorbing Alloy with High Dissociation Pressure. **2005**, 884, 1		1
451	Reversible storage of hydrogen in destabilized LiBH4. **2005**, 109, 3719-22		835
450	Nanotechnological Aspects in Materials for Hydrogen Storage. *Advanced Engineering Materials*, **2005**, 7, 443-455	3.5	216
449	(LiNH2MgH2): A Viable Hydrogen Storage System.. **2005**, 36, no		
448	The DOE National Hydrogen Storage Project: Recent Progress in On-Board Vehicular Hydrogen Storage. **2005**, 885, 1		3
447	Chemical activation of MgH2; a new route to superior hydrogen storage materials. **2005**, 2823-5		93
446	Hydrogen desorption mechanism in a Li-N-H system by means of the isotopic exchange technique. **2005**, 109, 14855-8		66
445	Mechanism of hydrogenation reaction in the Li-Mg-N-H system. **2005**, 109, 10744-8		71
444	Hydrogen absorption and desorption in MgNaNH system. *Journal of Alloys and Compounds*, **2005**, 395, 209-212	5.7	64
443	Towards a viable hydrogen storage system for transportation application. *Journal of Alloys and Compounds*, **2005**, 404-406, 392-395	5.7	81
442	Thermodynamic and kinetic investigations of the hydrogen storage in the LiMgNH system. *Journal of Alloys and Compounds*, **2005**, 398, 235-239	5.7	229
441	Hydrogen absorption properties of LiMgNH system. *Journal of Alloys and Compounds*, **2005**, 400, 245-248	5.7	54
440	Effects of SWNT and metallic catalyst on hydrogen absorption/desorption performance of MgH2. **2005**, 109, 22217-21		82
439	Energetics of the Li amide/Li imide hydrogen storage reaction. **2005**, 72,		107
438	A first-principles investigation of LiNH(2) as a hydrogen-storage material: effects of substitutions of K and Mg for Li. **2006**, 110, 7139-43		26

437	Mechanistic investigations on the heterogeneous solid-state reaction of magnesium amides and lithium hydrides. **2006**, 110, 14221-5		103
436	Enhancement of lithium amide to lithium imide transition via mechanical activation. **2006**, 110, 20710-8		74
435	Hydrogen absorption and desorption by the Li-Al-N-H system. **2006**, 110, 9632-6		57
434	Improved hydrogen release from LiB0.33N0.67H2.67 with noble metal additions. **2006**, 110, 7967-74		68
433	Hydrogen release from Mg(NH2)2-MgH2 through mechanochemical reaction. **2006**, 110, 14688-92		96
432	Ultrafast Reaction between Li3N and LiNH2To Prepare the Effective Hydrogen Storage Material Li2NH. *Industrial & Engineering Chemistry Research*, **2006**, 45, 4993-4998	3.9	28
431	Hydrogen storage properties of Li-Mg-N-H systems with different ratios of LiH/Mg(NH2)2. **2006**, 110, 12964-8		76
430	Identification of destabilized metal hydrides for hydrogen storage using first principles calculations. **2006**, 110, 8769-76		249
429	A dehydrogenation mechanism of metal hydrides based on interactions between Hdelta+ and H-. **2006**, 45, 8749-54		44
428	Hydrogen Storage of Li2NH Prepared by Reacting Li with NH3. *Industrial & Engineering Chemistry Research*, **2006**, 45, 182-186	3.9	16
427	Thermodynamical stability of calcium borohydride Ca(BH4)2. **2006**, 74,		153
426	Thermodynamic and structural characterization of the Mg□Li□N□H hydrogen storage system. *Journal of Alloys and Compounds*, **2006**, 407, 274-281	5.7	155
425	Investigations on hydrogen storage over Li□Mg□N□H complex□he effect of compositional changes. *Journal of Alloys and Compounds*, **2006**, 417, 190-194	5.7	60
424	Development of metal hydride with high dissociation pressure. *Journal of Alloys and Compounds*, **2006**, 419, 256-261	5.7	81
423	Hydrogen adsorption and desorption by carbon materials. *Journal of Alloys and Compounds*, **2006**, 421, 204-208	5.7	67
422	Effects of ball-milling conditions on dehydrogenation of Mg(NH2)2□MgH2. **2006**, 159, 120-125		38
421	Hydrogen absorption/desorption behaviors over a quaternary Mg□Ca□Li□N□H system. **2006**, 159, 135-138		20
420	Hydrogen releasing reaction between Mg(NH2)2 and CaH2. **2006**, 159, 116-119		32

419	Crystal structure analysis of novel complex hydrides formed by the combination of LiBH4 and LiNH2. **2006**, 83, 277-279		73
418	Recent development on hydrogen storage materials composed of light elements. **2006**, 383, 45-48		16
417	Recent development on hydrogen storage properties in metal□□H systems. **2006**, 159, 126-131		34
416	Investigation on chemical reaction between LiAlH4 and LiNH2. **2006**, 159, 167-170		52
415	Hydrogen storage of metal nitrides by a mechanochemical reaction. **2006**, 159, 81-87		51
414	Synthesis and Structural Characterization of a New Alkaline Earth Imide: MgCa(NH)2. **2006**, 2006, 4368-4373		19
413	Crystal Structure Analysis in the Dehydrogenation Process of Mg(NH2)2-LiH System. **2006**, 971, 1		5
412	Recent Progresses on Complex- and Perovskite-Hydrides for Hydrogen Storage. **2006**, 927, 1		
411	The Potential of Binary Lithium Magnesium Nitride - LiMgN for Hydrogen Storage Application. **2007**, 1042, 1		
410	Improved hydrogen storage properties of LiBH4 destabilized by carbon. **2007**, 90, 034106		100
409	Adsorption and dissociation of hydrogen on Li3N surface: A first principles study. **2007**, 90, 084101		7
408	A New Concept of Hydrogen Storage Using Lithium Hydride and Ammonia. **2007**, 1042, 1		0
407	Improvement of the hydrogen-storage performances of Li□Mg□□H system. **2007**, 22, 1339-1345		37
406	The crystal structure of LiND2 and Mg(ND2)2. *Journal of Alloys and Compounds*, **2007**, 428, 297-301	5.7	67
405	Observation of hydrogen absorption/desorption reaction processes in Li□Mg□□H system by in-situ X-ray diffractmetry. *Journal of Alloys and Compounds*, **2007**, 430, 217-221	5.7	15
404	Activation of hydrogen storage materials in the Li□Mg□□H system: Effect on storage properties. *Journal of Alloys and Compounds*, **2007**, 430, 334-338	5.7	54
403	Desorption characteristics of mechanically and chemically modified LiNH2 and (LiNH2+LiH). *Journal of Alloys and Compounds*, **2007**, 432, 277-282	5.7	56
402	A process for synthesizing the Li□Mg□□H hydrogen storage system from Mg and LiNH2. *Journal of Alloys and Compounds*, **2007**, 432, 289-292	5.7	10

401	Investigations on hydrogen desorption from the mixture of Mg(NH2)2 and CaH2. *Journal of Alloys and Compounds*, **2007**, 432, 298-302	5.7	26
400	Improved hydrogen release from LiB0.33N0.67H2.67 with metal additives: Ni, Fe, and Zn. *Journal of Alloys and Compounds*, **2007**, 433, 282-291	5.7	56
399	Ca□Na□NH system for reversible hydrogen storage. *Journal of Alloys and Compounds*, **2007**, 441, 152-156	5.7	27
398	The effect of exposure of the H-storage system (LiNH2+MgH2) to water-saturated air. *Journal of Alloys and Compounds*, **2007**, 440, L13-L17	5.7	13
397	Li□Mg□NH: Recent investigations and development. *Journal of Alloys and Compounds*, **2007**, 446-447, 336-341	5.7	34
396	Dehydriding and rehydriding properties of Mg(NH2)2□iH systems. *Journal of Alloys and Compounds* , **2007**, 446-447, 328-331	5.7	17
395	Phase evolution of Li2ND, LiD and LiND2 in hydriding/dehydriding of Li3N. *Journal of Alloys and Compounds*, **2007**, 446-447, 363-367	5.7	10
394	High throughput screening of the ternary LiNH2□MgH2□iBH4 phase diagram. *Journal of Alloys and Compounds*, **2007**, 446-447, 355-359	5.7	36
393	Development of a high-pressure microbalance for hydrogen storage materials. *Journal of Alloys and Compounds*, **2007**, 446-447, 703-706	5.7	2
392	Synthesis and hydrogenation properties of Mg□ mol%LaNi3 composite prepared under an external magnetic field. **2007**, 15, 61-68		11
391	Stability analysis of doped materials for reversible hydrogen storage in destabilized metal hydrides. **2007**, 76,		25
390	Characterization of NH3 formation in desorption of Li□Mg□NH storage system. *Journal of Alloys and Compounds*, **2007**, 440, 357-361	5.7	43
389	Complex hydrides for hydrogen storage. **2007**, 107, 4111-32		1769
388	Synthesis and characterization of a new ternary imide-Li2Ca(NH)2. **2007**, 46, 517-21		38
387	First-Principles Investigation of Adsorption and Dissociation of Hydrogen on Mg2Si Surfaces. *Journal of Physical Chemistry C*, **2007**, 111, 6910-6916	3.8	18
386	Potential of Binary Lithium Magnesium Nitride for Hydrogen Storage Applications. *Journal of Physical Chemistry C*, **2007**, 111, 12129-12134	3.8	54
385	Structural and Compositional Changes during Hydrogenation/Dehydrogenation of the Li□Mg□NH System. *Journal of Physical Chemistry C*, **2007**, 111, 18439-18443	3.8	82
384	Kinetic Improvement in the Mg(NH2)2□iH Storage System by Product Seeding. *Journal of Physical Chemistry C*, **2007**, 111, 6568-6573	3.8	56

383	Large Amount of Hydrogen Desorption from the Mixture of Mg(NH2)2and LiAlH4. *Journal of Physical Chemistry C*, **2007**, 111, 19161-19164	3.8	28
382	First-principles study of cation and hydrogen arrangements in the Li-Mg-N-H hydrogen storage system. **2007**, 76,		22
381	Mg-Promoted LiH□LiNH2 Hydrogen Storage System Synthesized by Using the Mechanochemical Method. *Journal of Physical Chemistry C*, **2007**, 111, 8389-8396	3.8	7
380	Potential and Reaction Mechanism of Li□Mg□AlN□H System for Reversible Hydrogen Storage. *Journal of Physical Chemistry C*, **2007**, 111, 16686-16692	3.8	23
379	On the structural and energetic properties of the hydrogen absorber Li2Mg(NH)2. **2007**, 91, 091924		14
378	Decomposition of LiAl(NH2)4 and Reaction with LiH for a Possible Reversible Hydrogen Storage. *Journal of Physical Chemistry C*, **2007**, 111, 2335-2340	3.8	42
377	Metal Amides: New Hydrogen Storage Systems. **2007**, 1-3		
376	Nanotechnological Aspects in Materials for Hydrogen Storage. **2007**,		
375	Reversible Hydrogen Storage by a Li□Al□N□H Complex. **2007**, 17, 1137-1142		94
374	First-Principles Determination of Multicomponent Hydride Phase Diagrams: Application to the Li-Mg-N-H System. *Advanced Materials*, **2007**, 19, 3233-3239	24	191
373	Non-hydride systems of the main group elements as hydrogen storage materials. **2007**, 251, 925-935		86
372	Energetics of the lithium-magnesium imide□magnesium amide and lithium hydride reaction for hydrogen storage: An ab initio study. **2007**, 140, 114-122		35
371	Investigation of the processes for reversible hydrogen storage in the Li□Mg□N□H system. **2007**, 164, 496-502		49
370	Enhanced hydrogen storage properties of MgH2 co-catalyzed with NbF5 and single-walled carbon nanotubes. **2007**, 56, 765-768		40
369	Using first principles calculations to identify new destabilized metal hydride reactions for reversible hydrogen storage. **2007**, 9, 1438-52		161
368	Phase Boundaries and Reversibility of LiBH4/MgH2 Hydrogen Storage Material. *Journal of Physical Chemistry C*, **2007**, 111, 12881-12885	3.8	161
367	Improved Hydrogen Storage of LiBH4 Catalyzed Magnesium. *Journal of Physical Chemistry C*, **2007**, 111, 12495-12498	3.8	55
366	Improved hydrogen storage performance of Li□Mg□N□H materials by optimizing composition and adding single-walled carbon nanotubes. *International Journal of Hydrogen Energy*, **2007**, 32, 1262-1268	6.7	52

365	Decomposition of lithium amide and imide films on nickel. **2007**, 601, 830-836		5
364	A hybrid method for hydrogen storage and generation from water. **2007**, 172, 853-858		12
363	Evaluation of the hydrogen storage behavior of a LiNH2+MgH2 system with 1:1 ratio. **2007**, 172, 376-378		34
362	Comparisons between MgH2- and LiH-containing systems for hydrogen storage applications. *International Journal of Hydrogen Energy*, **2008**, 33, 3915-3924	6.7	37
361	Recent progress in hydrogen storage. **2008**, 11, 36-43		422
360	Strategies for the improvement of the hydrogen storage properties of metal hydride materials. **2008**, 9, 2157-62		42
359	A self-catalyzing hydrogen-storage material. **2008**, 47, 882-7		116
358	A Self-Catalyzing Hydrogen-Storage Material. **2008**, 120, 896-901		12
357	Comparative studies of reaction rates of NH3 with MgH2 and LiH. **2008**, 180, 535-538		12
356	Hydrogen desorption processes in Li□Mg□N□H systems. **2008**, 69, 2234-2236		17
355	Kinetic- and thermodynamic-based improvements of lithium borohydride incorporated into activated carbon. **2008**, 56, 6257-6263		124
354	Evaluation of enthalpy change due to hydrogen desorption for lithium amide/imide system by differential scanning calorimetry. **2008**, 468, 35-38		23
353	Hydrogen dissociation on oxide covered MgH2 by catalytically active vacancies. **2008**, 254, 2377-2384		51
352	Effects of mechanical milling on desorption kinetics and phase transformation of LiNH2/MgH2 mixture. *International Journal of Hydrogen Energy*, **2008**, 33, 6188-6194	6.7	41
351	Simultaneous determination of ammonia emission and hydrogen capacity variation during the cyclic testing for LiNH2□iH hydrogen storage system. *International Journal of Hydrogen Energy*, **2008**, 33, 6201-6204	6.7	13
350	Hydrogen spillover in the context of hydrogen storage using solid-state materials. **2008**, 1, 338		116
349	Synthesis of Nanoscale Hydrogen Storage Materials. *Green Energy and Technology*, **2008**, 455-470	0.6	
348	Lithium nitrides, imides and amides as lightweight, reversible hydrogen stores. **2008**, 18, 2321		71

347	Hydrogen Technology. *Green Energy and Technology*, **2008**,	0.6	33
346	Hydrogen sorption kinetics of MgH2 catalyzed with NbF5. *Journal of Alloys and Compounds*, **2008**, 453, 138-142	5.7	73
345	Crystal structure determination and reaction pathway of amide–hydride mixtures. *Journal of Alloys and Compounds*, **2008**, 454, 233-244	5.7	104
344	Crystallite sizes of LiH before and after ball milling and thermal exposure. *Journal of Alloys and Compounds*, **2008**, 454, 297-305	5.7	20
343	Dehydrogenation reaction of Li–Mg–N–H systems studied by in situ synchrotron powder X-ray diffraction and powder neutron diffraction. *Journal of Alloys and Compounds*, **2008**, 457, 362-367	5.7	36
342	Impregnation method for the synthesis of Li–N–H systems. *Journal of Alloys and Compounds*, **2008**, 458, L1-L5	5.7	12
341	A study of the LiNH2–MgH2 system for solid state hydrogen storage. *Journal of Alloys and Compounds*, **2008**, 459, 343-347	5.7	26
340	Enhanced H-storage property in Li–Co–N–H system by promoting ion migration. *Journal of Alloys and Compounds*, **2008**, 466, L1-L4	5.7	10
339	Materials for hydrogen storage: current research trends and perspectives. **2008**, 668-81		563
338	Effects of mechanical activation on dehydrogenation of the lithium amide and lithium hydride system. *Journal of Alloys and Compounds*, **2008**, 448, 263-271	5.7	53
337	Density functional theory for hydrogen storage materials: successes and opportunities. **2008**, 20, 064229		48
336	Structure of ternary imide Li2Ca(NH)2 and hydrogen storage mechanisms in amide-hydride system. **2008**, 130, 6515-22		65
335	Interaction of lithium hydride and ammonia borane in THF. **2008**, 5595-7		67
334	Cobalt-catalyzed hydrogen desorption from the LiNH2-LiBH4 system. **2008**, 2395-9		54
333	Hydrogen Storage Properties in (LiNH2)2–LiBH4–(MgH2)X Mixtures (X = 0.0–1.0). *Journal of Physical Chemistry C*, **2008**, 112, 4384-4390	3.8	39
332	Investigation on the Properties of the Mixture Consisting of Mg(NH2)2, LiH, and LiBH4 as a Hydrogen Storage Material. **2008**, 20, 7089-7094		41
331	Catalytically Enhanced Hydrogen Storage Properties of Mg(NH2)2 + 2LiH Material by Graphite-Supported Ru Nanoparticles. *Journal of Physical Chemistry C*, **2008**, 112, 18280-18285	3.8	38
330	Comparison of the Calculated and Experimental Scenarios for Solid-State Reactions Involving Ca(AlH4)2. *Journal of Physical Chemistry C*, **2008**, 112, 131-138	3.8	14

329	Improvement of Hydrogen Storage Properties of the Li-Mg-N-H System by Addition of LiBH4. **2008**, 20, 4398-4402		98
328	Discovery of novel hydrogen storage materials: an atomic scale computational approach. **2008**, 20, 064228		64
327	Role of Amino Anion in Metal Amides/Imides for Hydrogen Storage: A First Principle Study. *Journal of Physical Chemistry C*, **2008**, 112, 18264-18269	3.8	8
326	Hydrogen Storage in a LiNH2-MgH2 (1:1) System. **2008**, 20, 3521-3527		63
325	Thermodynamic analysis of hydrogen sorption reactions in Li-Mg-N-H systems. **2008**, 92, 021907		22
324	Effect of Pore Size on Dehydrogenation Temperature of Carbon Cryogel-Ammoniaborane Nanocomposites. **2008**, 1098, 1		
323	The structural properties of amides and imides as hydrogen storage materials. **2008**, 223, 660-665		13
322	Nanomaterials for Hydrogen Storage Applications: A Review. **2008**, 2008, 1-9		121
321	Imides and amides as hydrogen storage materials. **2008**, 450-477		4
320	Low-energy ordered structures of Li2Mg(NH)2. **2008**, 104, 083519		9
319	Synthesis and Characterization of Impregnated Li-N-H Complex Hydride. **2008**, 72, 163-167		3
318	Effect of Li3N additive on the hydrogen storage properties of Li-Mg-N-H system. **2009**, 24, 1936-1942		9
317	Ab initio study on the electronic structure and vibration modes of alkali and alkaline-earth amides and alanates. **2009**, 21, 185501		7
316	Reversible hydrogen storage in metal-doped Mg-LiBH4 composites. **2009**, 60, 667-670		25
315	Improving the Hydrogen Reaction Kinetics of Complex Hydrides. *Advanced Materials*, **2009**, 21, 3023-3028	8.4	53
314	Hydrogen storage mediated by Pd and Pt nanoparticles. **2009**, 10, 2566-76		165
313	Solid-state hydrogen storage: Storage capacity, thermodynamics, and kinetics. **2009**, 61, 45-51		10
312	Preparation and hydrogen storage properties of an Li-Mg-N-H system. **2009**, 52, 1412-1416		2

311	Electronic structure, chemical bond and thermal stability of hydrogen absorber Li2MgN2H2. **2009**, 54, 497-503		1
310	The problem of solid state hydrogen storage. **2009**, 34, 2087-2091		157
309	The desorption kinetics of the Mg(NH2)2+LiH mixture. *International Journal of Hydrogen Energy*, **2009**, 34, 1411-1416	6.7	27
308	Boron- and nitrogen-based chemical hydrogen storage materials. *International Journal of Hydrogen Energy*, **2009**, 34, 2303-2311	6.7	308
307	Hazard assessment of complex hydrides as hydrogen storage materials. *International Journal of Hydrogen Energy*, **2009**, 34, 3210-3218	6.7	14
306	Thermal decomposition of LiAlH4 chemically mixed with Lithium amide and transition metal chlorides. *International Journal of Hydrogen Energy*, **2009**, 34, 8937-8943	6.7	26
305	Hydrogen storage in a Li□Al□N ternary system. *International Journal of Hydrogen Energy*, **2009**, 34, 8101-8107	6.7	18
304	Thermodynamics of Li□N□H system for hydrogen storage: A theoretical and experimental study. **2009**, 404, 3431-3434		11
303	Investigation of H2 storage in a templated carbon derived from zeolite Y and PFA. **2009**, 66, 565-569		31
302	First-principles prediction of thermodynamically reversible hydrogen storage reactions in the Li-Mg-Ca-B-H system. **2009**, 131, 230-7		242
301	Size-dependent kinetic enhancement in hydrogen absorption and desorption of the Li-Mg-N-H system. **2009**, 131, 1862-70		179
300	Determination of the Phase Behavior of (LiNH2)c(LiBH4)1−c Quaternary Hydrides through in Situ X-ray Diffraction. *Journal of Physical Chemistry C*, **2009**, 113, 18927-18934	3.8	23
299	Formation and Stability of Ternary Imides in the Li□Mg□N□H Hydrogen Storage System. **2009**, 21, 3485-3490		30
298	Hydrogen Desorption Behavior of Nickel-Chloride-Catalyzed Stoichiometric Li4BN3H10. *Journal of Physical Chemistry C*, **2009**, 113, 11172-11176	3.8	24
297	Nature of Ti Species in the Li□Mg□N□H System for Hydrogen Storage: A Theoretical and Experimental Investigation. *Industrial & Engineering Chemistry Research*, **2009**, 48, 5250-5254	3.9	16
296	Enhanced Hydrogen Storage Properties of Li□Mg□N□H System Prepared by Reacting Mg(NH2)2 with Li3N. *Journal of Physical Chemistry C*, **2009**, 113, 9944-9949	3.8	24
295	Surfaces and Clusters of Mg(NH2)2 Studied by Density Functional Theory Calculations. *Journal of Physical Chemistry C*, **2009**, 113, 21648-21656	3.8	3
294	Hydrogenation Reaction Pathway in Li2Mg(NH)2. *Journal of Physical Chemistry C*, **2009**, 113, 15772-15777	3.8	27

293	Catalytically enhanced dehydrogenation of LiMgNH hydrogen storage material by transition metal nitrides. *Journal of Alloys and Compounds*, **2009**, 468, L21-L24	5.7	31
292	Enhanced hydrogen storage performance of LiBH4Ni composite. *Journal of Alloys and Compounds*, **2009**, 479, 545-548	5.7	57
291	Enhanced hydrogen storage performances of NaBH4MgH2 system. *Journal of Alloys and Compounds*, **2009**, 479, 619-623	5.7	85
290	Diffusion controlled hydrogen desorption reaction for the LiBH4/2LiNH2 system. *Journal of Alloys and Compounds*, **2009**, 481, 473-479	5.7	20
289	Nanomaterials for Solid State Hydrogen Storage. *Fuel Cells and Hydrogen Energy*, **2009**,		122
288	Impact of Stoichiometry on the Hydrogen Storage Properties of LiNH2LiBH4MgH2 Ternary Composites. *Journal of Physical Chemistry C*, **2009**, 113, 2004-2013	3.8	17
287	Nanoscale Materials For Hydrogen and Energy Storage. **2009**, 270-297		1
286	First-principles computational discovery of materials for hydrogen storage. **2009**, 180, 012076		10
285	Hydrogen storage materials: present scenarios and future directions. **2009**, 105, 21		80
284	A computational study of electronic structure, thermodynamics and kinetics of hydrogen desorption from Al- and Si-doped and MgH2. **2009**, 19, 4348		29
283	Effects of triphenyl phosphate on the hydrogen storage performance of the Mg(NH2)2LiH system. **2009**, 19, 2141		29
282	Molecular hydrogen carrier with activated nanohydride and ammonia. **2009**, 24, 2185-2190		37
281	High capacity hydrogen storage materials: attributes for automotive applications and techniques for materials discovery. **2010**, 39, 656-75		867
280	Hydrogen storage properties of Ca(BH4)2-LiNH2 system. **2010**, 5, 1594-9		31
279	Pressure and Temperature Influence on the Desorption Pathway of the LiBH4MgH2 Composite System. *Journal of Physical Chemistry C*, **2010**, 114, 15212-15217	3.8	114
278	Synthesis and hydriding properties of Li2Mg(NH)2. **2010**, 195, 1984-1991		15
277	Hydrogen storage behaviour of Li3N doped with Li2O and Na2O. **2010**, 195, 2003-2007		6
276	Investigations on the solid state interaction between LiAlH4 and NaNH2. **2010**, 183, 2040-2044		15

275	Enhancement of Ti-Cr-V BCC alloys on the dehydrogenation kinetics of Li-Mg-N-H hydrogen storage materials. **2010**, 29, 621-624		7
274	Studies on heat capacities and thermal analysis of LiMgNH hydrogen storage system. **2010**, 100, 701-706		5
273	Advanced materials for energy storage. *Advanced Materials*, **2010**, 22, E28-62	24	3687
272	Nanoparticles and 3D Supported Nanomaterials. **2010**, 279-340		1
271	Amides, Imides and Mixtures. **2010**, 159-185		4
270	Reaction pathways determined by mechanical milling process for dehydrogenation/hydrogenation of the LiNH(2)/MgH(2) system. **2010**, 16, 693-702		39
269	Hydrogen storage properties of LiCaNH system with different molar ratios of LiNH2/CaH2. *International Journal of Hydrogen Energy*, **2010**, 35, 8317-8321	6.7	27
268	Reaction between magnesium ammine complex compound and lithium hydride. *International Journal of Hydrogen Energy*, **2010**, 35, 2058-2062	6.7	13
267	Thermochemical transformations in 2MNH2–MgH2 systems (M = Li or Na). *International Journal of Hydrogen Energy*, **2010**, 35, 4562-4568	6.7	26
266	In-situ neutron diffraction study of magnesium amide/lithium hydride stoichiometric mixtures with lithium hydride excess. *International Journal of Hydrogen Energy*, **2010**, 35, 5448-5453	6.7	13
265	Hydrogen desorption from LiBH4 destabilized by chlorides of transition metal Fe, Co, and Ni. *International Journal of Hydrogen Energy*, **2010**, 35, 7288-7294	6.7	70
264	Improved hydrogen storage performance of the LiNH2–MgH2–LiBH4 system by addition of ZrCo hydride. *International Journal of Hydrogen Energy*, **2010**, 35, 7809-7814	6.7	32
263	Role of additives in LiBH4–MgH2 reactive hydride composites for sorption kinetics. **2010**, 58, 3381-3389		170
262	. **2010**,		106
261	Structural and Electronic Properties of Li2Mg(NH)2 for Hydrogen Storage: First-principles Study. **2010**, 23, 5-10		4
260	Density functional study of Li4NH and Li1.5NH1.5 as intermediary compounds during hydrogenation of Li3N. **2010**, 81,		15
259	Hydrogen: A future energy vector for sustainable development. **2010**, 224, 539-558		46
258	Reversible Hydrogen Storage in Destabilized LiAlH4–MgH2–LiBH4 Ternary-Hydride System Doped with TiF3. *Journal of Physical Chemistry C*, **2010**, 114, 11643-11649	3.8	45

257	Enhanced Dehydrogenation Properties of Modified Mg(NH2)2□LiBH4 Composites. *Journal of Physical Chemistry C*, **2010**, 114, 17947-17953	3.8	19
256	Catalytic Effect of Transition Metal Doped in the Li□N□H System for Hydrogen Storage: A First Principle Investigation. *Industrial & Engineering Chemistry Research*, **2010**, 49, 5993-5996	3.9	7
255	Tunable Defect Structure in the Li□Mg□N Ternary Phase System: A Powder Neutron Diffraction Study. **2010**, 22, 3174-3182		6
254	Crystal structure and charge density analysis of Ca(BH4)2. *Journal of Alloys and Compounds*, **2010**, 491, 57-62	5.7	25
253	Synthesis and crystal structure of a novel nitride hydride Sr2LiNH2. *Journal of Alloys and Compounds*, **2010**, 495, 272-274	5.7	7
252	High capacity hydrogen generation on-demand from (NH3+LiAlH4). *Journal of Alloys and Compounds*, **2010**, 497, L17-L20	5.7	10
251	Studies of covalent amides for hydrogen storage systems: Structures and bonding of the MAl(NH2)4 phases with M=Li, Na and K. *Journal of Alloys and Compounds*, **2010**, 503, 194-203	5.7	18
250	Thermodynamic destabilization of Li□N□H system by Si addition. *Journal of Alloys and Compounds*, **2010**, 505, 343-347	5.7	2
249	Novel hydrogen storage materials: A review of lightweight complex hydrides. *Journal of Alloys and Compounds*, **2010**, 503, 303-339	5.7	352
248	Mechanochemically driven nonequilibrium processes in MNH2□CaH2 systems (M=Li or Na). *Journal of Alloys and Compounds*, **2010**, 506, 224-230	5.7	4
247	Hydrogen storage reaction over a ternary imide Li2Mg2N3H3. **2010**, 12, 3108-11		22
246	Destabilisation of the Li-N-H hydrogen storage system with elemental Si. **2011**, 13, 17683-8		8
245	Intrinsic defects and dopants in LiNH2: a first-principles study. **2011**, 13, 6043-52		14
244	Local defects enhanced dehydrogenation kinetics of the NaBH(4)-added Li-Mg-N-H system. **2011**, 13, 314-21		31
243	Improving Effects of LiH and Co-Catalyst on the Dehydrogenation of Li4BN3H10. *Journal of Physical Chemistry C*, **2011**, 115, 8840-8844	3.8	17
242	Mitigation of Hydrogen Capacity Losses during Pressure Cycling of the Li3N□H System by the Addition of Nitrogen. *Journal of Physical Chemistry C*, **2011**, 115, 14386-14391	3.8	12
241	Improved Dehydrogenation Properties of Calcium Borohydride Combined with Alkaline-Earth Metal Amides. *Journal of Physical Chemistry C*, **2011**, 115, 18035-18041	3.8	20
240	Development of amidoboranes for hydrogen storage. **2011**, 47, 5116-29		129

239	First-Principles Study of Novel Conversion Reactions for High-Capacity Li-Ion Battery Anodes in the Li□MgBNH System. *Journal of Physical Chemistry C*, **2011**, 115, 16681-16687	3.8	21
238	Hydrogen storage and ionic mobility in amide-halide systems. **2011**, 151, 271-84; discussion 285-95		37
237	Solid-state hydrogen storage for mobile applications: Quo Vadis?. **2011**, 4, 2495		91
236	Ternary and higher pnictides; prospects for new materials and applications. **2011**, 40, 4099-118		42
235	Influence of magnesium on hydrogenated ScAl1−xMgx alloys: A theoretical study. **2011**, 50, 2848-2853		3
234	Correlation between composition and hydrogen storage behaviors of the Li2NH-MgNH combination system. **2011**, 40, 8179-86		17
233	Improved reversible dehydrogenation of 2LiBH4+MgH2 system by introducing Ni nanoparticles. **2011**, 26, 1143-1150		16
232	Destabilization of LiBH4 by (Ce, La)(Cl, F)3 for hydrogen storage. *Journal of Alloys and Compounds*, **2011**, 509, 751-757	5.7	55
231	Hydrogen release and structural transformations in LiNH2□MgH2 systems. *Journal of Alloys and Compounds*, **2011**, 509, S719-S723	5.7	14
230	Crystal structure change in the dehydrogenation process of the Li□MgNH system. *Journal of Alloys and Compounds*, **2011**, 509, 7553-7558	5.7	6
229	Li□MgNH-based combination systems for hydrogen storage. *Journal of Alloys and Compounds*, **2011**, 509, 7844-7853	5.7	67
228	Hydrogen Desorption from the NaNH2□MgH2 System. *Journal of Physical Chemistry C*, **2011**, 115, 8407-8413	4.8	28
227	Hydrogen Storage Properties of the Mg(NH3)6Cl2-LiH Combined System. **2011**, 52, 627-634		5
226	Ab initio analysis of the optical, electronic and elastic properties of the hydrogen-storage single crystals LiNH2. **2011**, 130, 685-689		3
225	Synthesis and hydrogenation properties of lithium magnesium nitride. *International Journal of Hydrogen Energy*, **2011**, 36, 9714-9718	6.7	6
224	Investigation of the thermochemical transformations in the LiAlH4□iNH2 system. *International Journal of Hydrogen Energy*, **2011**, 36, 10626-10634	6.7	15
223	Decomposition of Lithium Amide and Lithium Imide with and without Anion Promoter. *Industrial & Engineering Chemistry Research*, **2011**, 50, 8058-8064	3.9	12
222	Feasibility and performance of the mixture of MgH2 and LiNH2 (1:1) as a hydrogen-storage material. **2011**, 59, 5821-5831		24

221	Kinetic rate-limiting steps in dehydrogenation of LiNH and LiMgNH systems Effects of elemental Si and Al. *International Journal of Hydrogen Energy*, **2011**, 36, 8335-8343	6.7	26
220	Theoretical study of the interaction between LiNH2 and HMgH. **2011**, 111, 675-681		6
219	Hydrogen storage properties of the CeH2 doped Li-Mg-N-H/NaAlH4 system. **2011**, 29, 599-603		6
218	Hydrogen sorption from the Mg(NH2)2-KH system and synthesis of an amide-imide complex of KMg(NH)(NH2). **2011**, 4, 1622-8		33
217	Enhanced dehydrogenation/hydrogenation kinetics of the Mg(NH2)2LiH system with NaOH additive. *International Journal of Hydrogen Energy*, **2011**, 36, 2137-2144	6.7	38
216	Enhanced hydrogen storage performance of LiAlH4MgH2TiF3 composite. *International Journal of Hydrogen Energy*, **2011**, 36, 5369-5374	6.7	51
215	An investigation on the thermodynamics and kinetics of magnesium hydride decomposition based on isotope effects. *International Journal of Hydrogen Energy*, **2011**, 36, 8351-8357	6.7	19
214	Cyclic properties and ammonia by-product emission of Li/MgNH hydrogen storage material. *International Journal of Hydrogen Energy*, **2011**, 36, 8373-8380	6.7	13
213	Order and disorder in Ca2ND0.90H0.10A structural and thermal study. **2011**, 184, 2088-2096		4
212	First-principles prediction of high-capacity, thermodynamically reversible hydrogen storage reactions based on (NH4)2B12H12. **2011**, 83,		12
211	Affects of Mechanical Milling and Metal Oxide Additives on Sorption Kinetics of 1:1 LiNH2/MgH2 Mixture. *Energies*, **2011**, 4, 826-844	3.1	10
210	RECENT PROGRESS IN BORON- AND NITROGEN-BASED CHEMICAL HYDROGEN STORAGE. **2012**, 05, 1230001		67
209	Hydrogen storage materials discovery via high throughput ball milling and gas sorption. **2012**, 14, 352-8		12
208	Reaction Pathways for Hydrogen Uptake of the LiMgN-Based Hydrogen Storage System. *Journal of Physical Chemistry C*, **2012**, 116, 13551-13558	3.8	13
207	Structure and diffusion in liquid complex hydrides via ab initio molecular dynamics. **2012**, 86,		6
206	Additive Effects of LiBH4 and ZrCoH3 on the Hydrogen Sorption of the Li-Mg-N-H Hydrogen Storage System. *Journal of Physical Chemistry C*, **2012**, 116, 20246-20253	3.8	25
205	Materials design and modification on amide-based composites for hydrogen storage. **2012**, 22, 550-560		35
204	Enhanced hydrogen storage properties of NaAlH4 co-catalysed with niobium fluoride and single-walled carbon nanotubes. **2012**, 2, 1569-1576		20

203	Hydrogen Storage Properties of 3Mg(NH2)2□LiAlH6. *Journal of Physical Chemistry C*, **2012**, 116, 1485-1492	4.8	5
202	Intermediate species and kinetics of lithium imide decomposition. *International Journal of Hydrogen Energy*, **2012**, 37, 10467-10472	6.7	9
201	Mechanochemical transformations in NaNH2-MgH2 mixtures. *Journal of Alloys and Compounds*, **2012**, 513, 324-327	5.7	15
200	From the computer to the laboratory: materials discovery and design using first-principles calculations. *Journal of Materials Science*, **2012**, 47, 7317-7340	4.3	129
199	Li-Na ternary amidoborane for hydrogen storage: experimental and first-principles study. **2012**, 41, 4754-64		16
198	Hydrogen Storage. **2012**, 157-177		1
197	Li+ ionic conductivities and diffusion mechanisms in Li-based imides and lithium amide. **2012**, 14, 1596-606		31
196	On the feasibility of developing hydrogen storages capable of adsorption hydrogen both in its molecular and atomic states. *International Journal of Hydrogen Energy*, **2012**, 37, 18061-18073	6.7	20
195	Hydrogen storage properties and mechanisms of the Mg(BH4)2□NaAlH4 system. *International Journal of Hydrogen Energy*, **2012**, 37, 17137-17145	6.7	32
194	Enhanced dehydrogenation of nanoscale MgH2 confined by ordered mesoporous silica. **2012**, 136, 146-150		23
193	High capacity hydrogen storage: Basic aspects, new developments and milestones. **2012**, 1, 566-589		167
192	Development of Novel Polymer Nanostructures and Nanoscale Complex Hydrides for Reversible Hydrogen Storage. **2012**,		1
191	Catalytic Influence of Various Cerium Precursors on the Hydrogen Sorption Properties of NaAlH4. **2012**, 2, 560-568		34
190	Effect of MgCl2 additives on the H-desorption properties of Li□NH system. *International Journal of Hydrogen Energy*, **2012**, 37, 903-907	6.7	20
189	Studies on the de/re-hydrogenation characteristic of Mg(NH2)2/LiH mixture admixed with carbon nanofibres. *International Journal of Hydrogen Energy*, **2012**, 37, 3705-3711	6.7	16
188	System modeling methodology and analyses for materials-based hydrogen storage. *International Journal of Hydrogen Energy*, **2012**, 37, 2874-2884	6.7	19
187	Acceptability envelope for metal hydride-based hydrogen storage systems. *International Journal of Hydrogen Energy*, **2012**, 37, 2812-2824	6.7	44
186	Desorption kinetics of lithium amide/magnesium hydride systems at constant pressure thermodynamic driving forces. *International Journal of Hydrogen Energy*, **2012**, 37, 3298-3304	6.7	30

185	New insights into the mechanism of activation and hydrogen absorption of (2LiNH2–MgH2). *International Journal of Hydrogen Energy*, **2012**, 37, 6646-6652	6.7	45
184	Hydrogen storage: beyond conventional methods. **2013**, 49, 8735-51		355
183	Hydrogen Storage Materials. **2013**, 99-136		5
182	Hydrogen Storage Materials. **2013**, 377-405		4
181	Playing Hardball with Hydrogen: Metastable Mechanochemical Hydrogenation of Magnesium Nitride. *Journal of Physical Chemistry C*, **2013**, 117, 1237-1246	3.8	10
180	Binary and Complex Main-Group Hydrides for Hydrogen Storage. **2013**, 1251-1275		
179	Reversible hydrogen storage in the Li–Mg–N–H system – The effects of Ru doped single walled carbon nanotubes on NH3 emission and kinetics. *International Journal of Hydrogen Energy*, **2013**, 38, 10039-10049	6.7	15
178	Theoretical study on the structure and dehydrogenation mechanism of mixed metal amidoborane, Na[Li(NH2BH3)]2. *Journal of Alloys and Compounds*, **2013**, 581, 59-65	5.7	9
177	The chemistry of ternary and higher lithium nitrides. **2013**, 257, 1978-2014		44
176	First-principles study of hydrogen vacancies in lithium amide doped with titanium and niobium. *International Journal of Hydrogen Energy*, **2013**, 38, 11303-11312	6.7	8
175	A solid–solid reaction enhanced by an inhomogeneous catalyst in the (de)hydrogenation of a lithium–hydrogen–nitrogen system. **2013**, 3, 6311		9
174	Effects of Al-based additives on the hydrogen storage performance of the Mg(NH2)2-2LiH system. **2013**, 42, 5524-31		25
173	Understanding the role of K in the significantly improved hydrogen storage properties of a KOH-doped Li–Mg–N–H system. *Journal of Materials Chemistry A*, **2013**, 1, 5031	13	44
172	Improved hydrogen storage kinetics of the Li-Mg-N-H system by addition of Mg(BH4)2. **2013**, 42, 3802-11		58
171	Remarkable decrease in dehydrogenation temperature of Li–B–N–H hydrogen storage system with CoO additive. *International Journal of Hydrogen Energy*, **2013**, 38, 13318-13327	6.7	17
170	Releasing 9.6 wt% of H2 from Mg(NH2)2–LiH–NH3BH3 through mechanochemical reaction. *International Journal of Hydrogen Energy*, **2013**, 38, 10446-10452	6.7	7
169	Improved hydrogen storage performance of Mg(NH2)2/LiH mixture by addition of carbon nanostructured materials. *International Journal of Hydrogen Energy*, **2013**, 38, 8863-8871	6.7	15
168	Microstructure and hydrogen desorption characteristics of hydrogenated ScH2–MBn (M = Mg and Ca) systems synthesized by mechanical milling. *International Journal of Hydrogen Energy*, **2013**, 38, 6744-6749	6.7	

167	Preparation, scale-up and testing of nanoscale, doped amide systems for hydrogen storage. *International Journal of Hydrogen Energy*, **2013**, 38, 1439-1449	6.7	11
166	Recent process and development of metal aminoborane. **2013**, 8, 1076-89		28
165	Applications of high throughput (combinatorial) methodologies to electronic, magnetic, optical, and energy-related materials. **2013**, 113, 231101		170
164	Combined effects of molar ratio and ball milling energy on the phase transformations and mechanical dehydrogenation in the lithium amide-magnesium hydride (LiNH2 + nMgH2)(n = 0.5□2.0) nanocomposites. *International Journal of Hydrogen Energy*, **2013**, 38, 8313-8327	6.7	21
163	Recent advances in the theory of hydrogen storage in complex metal hydrides. **2013**, 38, 462-472		11
162	Mechanistic investigations on significantly improved hydrogen storage performance of the Ca(BH4)2-added 2LiNH2/MgH2 system. *International Journal of Hydrogen Energy*, **2013**, 38, 5030-5038	6.7	26
161	Amides and borohydrides for high-capacity solid-state hydrogen storage□aterials design and kinetic improvements. **2013**, 38, 480-487		42
160	First-Principles Studies on Hydrogen Desorption Mechanism of MgnH2n (n = 3, 4). *Journal of Physical Chemistry C*, **2013**, 117, 8099-8104	3.8	6
159	Metathesis Reaction-Induced Significant Improvement in Hydrogen Storage Properties of the KF-Added Mg(NH2)2□LiH System. *Journal of Physical Chemistry C*, **2013**, 117, 866-875	3.8	54
158	Rubidium Hydride: An Exceptional Dehydrogenation Catalyst for the Lithium Amide/Magnesium Hydride System. *Journal of Physical Chemistry C*, **2013**, 117, 6554-6560	3.8	29
157	Progress in Hydrogen Storage in Complex Hydrides. **2013**, 293-332		7
156	Solid-Solid heterogeneous catalysis: the role of potassium in promoting the dehydrogenation of the Mg(NH(2))(2)/2 LiH composite. **2013**, 6, 2181-9		23
155	Improved hydrogen-storage thermodynamics and kinetics for an RbF-doped Mg(NH2)2-2 LiH system. **2013**, 8, 2136-43		29
154	Synergetic effects of in situ formed CaH2 and LiBH4 on hydrogen storage properties of the Li-Mg-N-H system. **2013**, 8, 374-84		37
153	Effect of CO on hydrogen storage performance of 2LiNH2 + MgH2 system. *International Journal of Hydrogen Energy*, **2014**, 39, 9288-9292	6.7	7
152	Effect of lanthanum hydride on microstructures and hydrogen storage performances of 2LiNH2-MgH2 system. **2014**, 32, 429-433		6
151	A Theoretical Study of the Effect of Zr-, Nb-Doped and Vacancy-like Defects on H Desorption on MgH2 (110) Surface. *Journal of Physical Chemistry C*, **2014**, 118, 4231-4237	3.8	17
150	The enhanced hydrogen storage performance of (MgBNH)-doped Mg(NH2)□LiH system. *International Journal of Hydrogen Energy*, **2014**, 39, 1710-1718	6.7	18

149	Structural transitions of ternary imide Li2Mg(NH)2 for hydrogen storage. **2014**, 105, 083909		8
148	Effects of compaction pressure and graphite content on hydrogen storage properties of Mg(NH 2) 2 2LiH hydride. *International Journal of Hydrogen Energy*, **2014**, 39, 19656-19661	6.7	12
147	Compositional effects on the hydrogen storage properties of Mg(NH2)2-2LiH-xKH and the activity of KH during dehydrogenation reactions. **2014**, 43, 2369-77		33
146	In situ formation of lithium fast-ion conductors and improved hydrogen desorption properties of the LiNH2MgH2 system with the addition of lithium halides. *Journal of Materials Chemistry A*, **2014** , 2, 3155	13	36
145	Effect of gas back pressure on hydrogen storage properties and crystal structures of Li 2 Mg(NH) 2. *International Journal of Hydrogen Energy*, **2014**, 39, 17754-17764	6.7	12
144	Effects of additives on the microstructure and hydrogen storage properties of the Li3NMgH2 mixture. *Journal of Alloys and Compounds*, **2014**, 613, 199-203	5.7	16
143	Thermal dehydrogenation behaviors and mechanisms of Mg(BH4)2NH3-xLiH combination systems. *International Journal of Hydrogen Energy*, **2014**, 39, 11999-12006	6.7	8
142	Effective thermodynamic alteration to Mg(NH2)2LiH system: achieving near ambient-temperature hydrogen storage. *Journal of Materials Chemistry A*, **2014**, 2, 15816-15822	13	35
141	Improved kinetics of the Mg(NH2)2LiH system by addition of lithium halides. **2014**, 4, 32555		22
140	Hydrogen storage systems from waste Mg alloys. **2014**, 270, 554-563		60
139	Effect of CO on hydrogen storage performance of KF doped 2LiNH2+ MgH2 material. *Journal of Alloys and Compounds*, **2014**, 616, 47-50	5.7	7
138	Microstructures and Hydrogen Desorption Properties of the MgH2AlH3 Composite with NbF5 Addition. *Journal of Physical Chemistry C*, **2014**, 118, 18908-18916	3.8	22
137	NH3 Mediated or Ion Migration Reaction: The Case Study on HalideAmide System. *Journal of Physical Chemistry C*, **2014**, 118, 2344-2349	3.8	22
136	Superior dehydrogenation/hydrogenation kinetics and long-term cycling performance of K and Rb cocatalyzed Mg(NH(2))(2)-2LiH system. *ACS Applied Materials & Interfaces*, **2014**, 6, 17024-33	9.5	30
135	High-temperature failure behaviour and mechanism of K-based additives in LiMgNH hydrogen storage systems. *Journal of Materials Chemistry A*, **2014**, 2, 7345-7353	13	23
134	Density function theory investigation on the thermodynamic properties of the LiNH system. **2014** , 144, 484-490		3
133	Material properties and empirical rate equations for hydrogen sorption reactions in 2 LiNH21.1 MgH20.1 LiBH43 wt.% ZrCoH3. *International Journal of Hydrogen Energy*, **2014**, 39, 8283-8292	6.7	19
132	The effect of milling energy input and molar ratio on the dehydrogenation and thermal conductivity of the (LiNH2+nMgH2) (n=0.5, 0.7, 0.9, 1.0, 1.5 and2.0) nanocomposites. *International Journal of Hydrogen Energy*, **2014**, 39, 10585-10599	6.7	6

131	Hydrogen storage in Mg□iBH4 composites catalyzed by FeF3. **2014**, 267, 799-811		33
130	Hydrogen Energy. **2015**, 1-38		
129	Hydriding and dehydriding kinetics of RbH-doped 2LiNH2/MgH2 hydrogen storage system. *Journal of Alloys and Compounds*, **2015**, 645, S496-S499	5.7	9
128	Mechanochemistry and hydrogen storage properties of 2Li3N+Mg mixture. **2015**, 1		3
127	Ternary Amides Containing Transition Metals for Hydrogen Storage: A Case Study with Alkali Metal Amidozincates. **2015**, 8, 3777-82		12
126	Hydrogen Storage Materials for Mobile and Stationary Applications: Current State of the Art. **2015**, 8, 2789-825		236
125	Ultrafine Nanocrystalline CeO2@C-Containing NaAlH4 with Fast Kinetics and Good Reversibility for Hydrogen Storage. **2015**, 8, 4180-8		19
124	The improved Hydrogen Storage Performances of the Multi-Component Composite: 2Mg(NH2)2□LiH□iBH4. *Energies*, **2015**, 8, 6898-6909	3.1	17
123	Kinetic Modification on Hydrogen Desorption of Lithium Hydride and Magnesium Amide System. *Materials*, **2015**, 8, 3896-3909	3.5	6
122	A Li-Mg-N-H composite as H2 storage material: a case study with Mg(NH2)2-4LiH-LiNH2. **2015**, 51, 10018-21		15
121	Insights into the dehydrogenation reaction process of a K-containing Mg(NH2)2-2LiH system. **2015**, 44, 18012-8		16
120	Potassium, rubidium and cesium hydrides as dehydrogenation catalysts for the lithium amide/magnesium hydride system. *International Journal of Hydrogen Energy*, **2015**, 40, 2266-2273	6.7	32
119	Evaluation of the enthalpy change due to hydrogen desorption for M□□H (M = Li, Mg, Ca) systems by differential scanning calorimetry. *International Journal of Hydrogen Energy*, **2015**, 40, 1516-1522	6.7	10
118	Synthesis and characterization of two new amide chloride compounds: Potential H2 storage materials. *International Journal of Hydrogen Energy*, **2015**, 40, 3001-3005	6.7	9
117	Comparison of the thermochemical and mechanochemical transformations in the 2NaNH 2 □MgH 2 system. *International Journal of Hydrogen Energy*, **2015**, 40, 1829-1835	6.7	9
116	Reaction Behavior of the Li-N-H Hydrogen Storage System with Boron Nitride as an Additive. **2015**, 2, 50-57		
115	Microstructural evolution and improved hydrogen storage properties for the Li3N□MgH2 system by addition of LiNH2 during the hydrogenation/dehydrogenation. *International Journal of Hydrogen Energy*, **2015**, 40, 9298-9305	6.7	14
114	Hydrogen storage properties of LiNH 2 □iH system with MgH 2 , CaH 2 and TiH 2 added. *International Journal of Hydrogen Energy*, **2015**, 40, 9335-9346	6.7	23

113	Hydrogen absorption and lithium ion conductivity in Li6NBr3. *Journal of Alloys and Compounds*, **2015**, 645, S174-S177	5.7	3
112	Effect of N2, CH4 and O2 on hydrogen storage performance of 2LiNH2 + MgH2 system. *International Journal of Hydrogen Energy*, **2015**, 40, 6173-6179	6.7	8
111	Hydrogen storage properties of the mixtures MgH2–Li3N with different molar ratios. *Journal of Alloys and Compounds*, **2015**, 645, S464-S467	5.7	8
110	Hydrogen Storage Materials. **2015**, 205-239		4
109	On the synthesis, characterization and hydrogen storage behavior of ZrFe2 catalyzed Li–Mg–N–H hydrogen storage material. *International Journal of Hydrogen Energy*, **2015**, 40, 12294-12302	6.7	31
108	Kinetic improvement on the CaH2-catalyzed Mg(NH2)2+ 2LiH system. *Journal of Alloys and Compounds*, **2015**, 645, S284-S287	5.7	12
107	Effect of LiCl presence on the hydrogen storage performance of the Mg(NH2)2–2LiH composite. **2015**, 5, 68542-68550		15
106	Thermodynamics, kinetics and modeling studies of KH- RbH- and CsH-doped 2LiNH2/MgH2 hydrogen storage systems. *International Journal of Hydrogen Energy*, **2015**, 40, 12336-12342	6.7	12
105	Enhancing ionic conductivity in lithium amide for improved energy storage materials. **2015**, 6, 015005		3
104	Hierarchical porous Li–Mg(NH)@C nanowires with long cycle life towards stable hydrogen storage. **2014**, 4, 6599		10
103	Metal Amides: New Hydrogen Storage Systems. **2016**,		
102	Hydrogen Storage by Reversible Metal Hydride Formation. **2016**, 763-790		5
101	Two-Peak Mystery of LiNH2–NaH Dehydrogenation Is Solved? A Study of the Analogous Sodium Amide/Lithium Hydride System. *Journal of Physical Chemistry C*, **2016**, 120, 27903-27909	3.8	11
100	The remarkable ability of anions to bind dihydrogen. **2016**, 18, 14588-602		18
99	Improvement of hydrogen storage property of three-component Mg(NH)-LiNH-LiH composites by additives. **2016**, 45, 15374-15381		21
98	Mechanochemical synthesis in the Li-Mg-N-D system under deuterium gas: a neutron diffraction study. **2016**, 18, 23944-53		3
97	Hydrogen Storage. **2016**, 567-638		
96	Effective participation of Li4(NH2)3BH4 in the dehydrogenation pathway of the Mg(NH2)2-2LiH composite. **2016**, 18, 17997-8005		15

95	Tailoring Thermodynamics and Kinetics for Hydrogen Storage in Complex Hydrides towards Applications. **2016**, 16, 189-204		49
94	The interactions of Li3FeN2 with H2 and NH3. *International Journal of Hydrogen Energy*, **2016**, 41, 14171-14177	6.7	4
93	Metal Hydrides. **2016**, 149-161		
92	Hydrogen carriers. **2016**, 1,		394
91	Synthesis of CsH and its effect on the hydrogen storage properties of the Mg(NH2)2-2LiH system. *International Journal of Hydrogen Energy*, **2016**, 41, 11264-11274	6.7	14
90	Li4(NH2)3Cl amide-chloride: a new synthesis route, and hydrogen storage kinetic and thermodynamic properties. **2016**, 6, 15622-15629		4
89	Enhancement of Hydrogen Storage in Destabilized LiNH2 with KMgH3 by Quick Conveyance of N-Containing Species. *Journal of Physical Chemistry C*, **2016**, 120, 1415-1420	3.8	23
88	Synthesis and decomposition of Li3Na(NH2)4 and investigations of Li-Na-N-H based systems for hydrogen storage. **2016**, 18, 1735-42		10
87	Complex and liquid hydrides for energy storage. **2016**, 122, 1		64
86	A new potassium-based intermediate and its role in the desorption properties of the K-Mg-N-H system. **2016**, 18, 3910-20		8
85	Thermal decomposition of sodium amide. *International Journal of Hydrogen Energy*, **2017**, 42, 5213-5219	6.7	12
84	Hydrogen storage properties of Li[illegible]MgNBH/ZrCoH3 composite with different ball-milling atmospheres. **2017**, 1		1
83	Near Ambient Condition Hydrogen Storage in a Synergized Tricomponent Hydride System. **2017**, 7, 1602456		25
82	Enhanced hydrogen sorption in a Li-Mg-N-H system by the synergistic role of Li(NH)BH and ZrFe. **2017**, 19, 9444-9456		15
81	Enhanced hydrogen storage properties of 2LiNH2/MgH2 through the addition of Mg(BH4)2. *Journal of Alloys and Compounds*, **2017**, 704, 44-50	5.7	14
80	The effect of Sr(OH) on the hydrogen storage properties of the Mg(NH)-2LiH system. **2017**, 19, 8457-8464		13
79	Effects of Stoichiometry on the H -Storage Properties of Mg(NH) -LiH-LiBH Tri-Component Systems. **2017**, 12, 1758-1764		11
78	The mechanism of H2 and H2O desorption from bridging hydroxyls of a TiO2(110) surface. **2017**, 7, 251-264		10

77	Air-stable hydrogen generation materials and enhanced hydrolysis performance of MgH 2 -LiNH 2 composites. **2017**, 359, 427-434		69
76	Preparation of Li-Mg-N-H hydrogen storage materials for an auxiliary power unit. *International Journal of Hydrogen Energy*, **2017**, 42, 17144-17148	6.7	9
75	Nanostructured Materials for Next-Generation Energy Storage and Conversion. **2017**,		4
74	The milled LiBH4/h-BN composites exhibiting unexpected hydrogen storage kinetics and reversibility. *International Journal of Hydrogen Energy*, **2017**, 42, 15790-15798	6.7	17
73	Recent advances in improving performances of the lightweight complex hydrides Li-Mg-N-H system. **2017**, 27, 21-33		45
72	Improved overall hydrogen storage properties of a CsH and KH co-doped Mg(NH2)2/2LiH system by forming mixed amides of LiK and CsMg. **2017**, 7, 30357-30364		5
71	Light metal borohydrides/amides combined hydrogen storage systems: composition, structure and properties. *Journal of Materials Chemistry A*, **2017**, 5, 25112-25130	13	34
70	Kinetic alteration of the 6Mg(NH)-9LiH-LiBH system by co-adding YCl and LiN. **2017**, 19, 32105-32115		8
69	Complex Metal Hydrides for Hydrogen, Thermal and Electrochemical Energy Storage. *Energies*, **2017**, 10, 1645	3.1	104
68	Improved Dehydrogenation Properties of 2LiNH2-MgH2 by Doping with Li3AlH6. *Metals*, **2017**, 7, 34	2.3	11
67	Investigation of Catalytic Effects and Compositional Variations in Desorption Characteristics of LiNH2-nanoMgH2. *Applied Sciences (Switzerland)*, **2017**, 7, 701	2.6	0
66	Hydrogen production, storage, transportation and key challenges with applications: A review. **2018**, 165, 602-627		477
65	Progress and Trends in Magnesium-Based Materials for Energy-Storage Research: A Review. **2018**, 6, 445-458		104
64	Enhanced thermal diffusivity and dehydrogenation of 2LiNH2MgH2 by doping with super activated carbon. *International Journal of Hydrogen Energy*, **2018**, 43, 13975-13980	6.7	7
63	In situ formation of Al3Ti, MgF2 and Al and their superior synergetic effects on reversible hydrogen storage of MgH2. **2018**, 318, 107-112		20
62	Introduction to metal-N-H systems for hydrogen storage. **2018**, 308-308		
61	Layers of Nanocrystalline SiC as a New Type of Solid-State Hydrogen Storage. **2018**, 2018, 1-6		2
60	. **2018**,		3

59	Synthesis of a new functionalized surface precursor of lithium magnesium urea solid blend ball milled with tracers from ordered-mesoporous-alumina for high-performance hydrogen storage. **2018**, 16, 276-281		
58	Air-stable metal hydride-polymer composites of Mg(NH2)2 iH and TPX *Materials Today Energy*, **2018**, 10, 98-107	7	12
57	Enhanced reversible hydrogen desorption properties and mechanism of Mg(BH4)2-AlH3-LiH composite. *Journal of Alloys and Compounds*, **2018**, 762, 548-554	5.7	9
56	Improvements in the hydrogen storage properties of the Mg(NH)-LiH composite by KOH addition. **2018**, 20, 15358-15367		6
55	Kinetics and hydrogen storage performance of Li-Mg-N-H systems doped with Al and AlCl3. *Journal of Alloys and Compounds*, **2018**, 765, 635-643	5.7	3
54	Nitrogen-Based Hydrogen Storage Systems: A Detailed Overview. **2018**, 39-88		
53	The mixed lithium-magnesium imide Li2Mg(NH)2 a promising and reliable hydrogen storage material. *International Journal of Hydrogen Energy*, **2018**, 43, 16092-16106	6.7	5
52	Recent Progress and New Perspectives on Metal Amide and Imide Systems for Solid-State Hydrogen Storage. *Energies*, **2018**, 11, 1027	3.1	33
51	Phase Transformations in the Mixed Lithium-Magnesium Imide Li2Mg(NH)2. *Russian Physics Journal*, **2019**, 61, 2244-2252	0.7	1
50	Understanding the Decomposition Mechanisms of LiNH2, Mg(NH2)2, and NaNH2: A Joint Experimental and Theoretical Study. *Journal of Physical Chemistry C*, **2019**, 123, 18180-18186	3.8	6
49	Comprehensive study of the physical properties of Ba3Pn2 (Pn=N, P, As, Sb and Bi) through first principles technique. *Materials Research Express*, **2019**, 6, 095902	1.7	1
48	Complex Hydrides for Energy Storage, Conversion, and Utilization. *Advanced Materials*, **2019**, 31, e1902757	24	58
47	Mechanochemistry of Metal Hydrides: Recent Advances. *Materials*, **2019**, 12,	3.5	41
46	Hydrogen storage materials for hydrogen and energy carriers. *International Journal of Hydrogen Energy*, **2019**, 44, 18179-18192	6.7	100
45	High capacity conversion anodes in Li-ion batteries: A review. *International Journal of Hydrogen Energy*, **2019**, 44, 10852-10905	6.7	62
44	Amphoteric behavior of hydrogen (H+1 and H) in complex hydrides from van der Waals interaction-including ab initio calculations. *Journal of Materials Chemistry A*, **2019**, 7, 6228-6240	13	4
43	Catalytic effects of Mg(BH4)2 on the desorption properties of 2LiNH2-MgH2 mixture. *International Journal of Hydrogen Energy*, **2019**, 44, 19294-19301	6.7	7
42	Mg-Mg2X (X=Cu, Sn) eutectic alloy for the Mg2X nano-lamellar compounds to catalyze hydrolysis reaction for H2 generation and the recycling of pure X metals from the reaction wastes. *Journal of Alloys and Compounds*, **2019**, 772, 489-498	5.7	24

41	Functionalized graphene materials for hydrogen storage. *Journal of Materials Science*, **2020**, 55, 1865-1903	43	63
40	High pressure phase transitions and physical properties of Li2MgH4; implications for hydrogen storage. *International Journal of Hydrogen Energy*, **2020**, 45, 4720-4730	6.7	15
39	Magnesium-Based Materials for Hydrogen Storage-A Scope Review. *Materials*, **2020**, 13,	3.5	21
38	Thermochemical transformation and reversible performance of Mg(NH2)2□NaMgH3 system. *International Journal of Hydrogen Energy*, **2020**, 45, 23069-23075	6.7	4
37	Nanomaterials in the advancement of hydrogen energy storage. *Heliyon*, **2020**, 6, e04487	3.6	20
36	Computationally Predicted High-Throughput Free-Energy Phase Diagrams for the Discovery of Solid-State Hydrogen Storage Reactions. *ACS Applied Materials & Interfaces*, **2020**, 12, 48553-48564	9.5	3
35	A Comprehensive Review on Hydrogen Absorption Behaviour of Metal Alloys Prepared through Mechanical Alloying. *Metals*, **2020**, 10, 562	2.3	13
34	The double tuning effect of TiO2 on Pt catalyzed dehydrogenation of methylcyclohexane. *Molecular Catalysis*, **2020**, 492, 110971	3.3	12
33	In situ measurement technologies on solid-state hydrogen storage materials: a review. *Materials Today Energy*, **2020**, 17, 100463	7	22
32	Hydrogen Pressure-Dependent Dehydrogenation Performance of the Mg(NH)-2LiH-0.07KOH System. *ACS Applied Materials & Interfaces*, **2020**, 12, 15255-15261	9.5	4
31	Reversible Hydrogen Storage Using Nanocomposites. *Applied Sciences (Switzerland)*, **2020**, 10, 4618	2.6	7
30	A Review of the MSCA ITN ECOSTORE□Novel Complex Metal Hydrides for Efficient and Compact Storage of Renewable Energy as Hydrogen and Electricity. *Inorganics*, **2020**, 8, 17	2.9	26
29	Conversion of magnesium waste into a complex magnesium hydride system: Mg(NH2)2□LiH. *Sustainable Energy and Fuels*, **2020**, 4, 1915-1923	5.8	12
28	Mild-condition synthesis of A2ZnH4 (A□=□K, Rb, Cs) and their effects on the hydrogen storage properties of 2LiH-Mg(NH2)2. *Journal of Energy Chemistry*, **2020**, 50, 358-364	12	3
27	On-Board and Off-Board Technologies for Hydrogen Storage. *Advances in Computer and Electrical Engineering Book Series*, **2021**, 139-165	0.3	
26	A Review of High Density Solid Hydrogen Storage Materials by Pyrolysis for Promising Mobile Applications. *Industrial & Engineering Chemistry Research*, **2021**, 60, 2737-2771	3.9	12
25	Mg-based materials for hydrogen storage. *Journal of Magnesium and Alloys*, **2021**, 9, 1837-1837	8.8	18
24	High Hydrogen Mobility in an Amide□Borohydride Compound Studied by Quasielastic Neutron Scattering. *Advanced Engineering Materials*, **2021**, 23, 2100620	3.5	0

23	The Roles of Alkali/Alkaline Earth Metals in the Materials Design and Development for Hydrogen Storage. *Accounts of Materials Research*, **2021**, 2, 726-738	7.5	1
22	Hydrogen and ethanol: Production, storage, and transportation. *International Journal of Hydrogen Energy*, **2021**, 46, 27330-27348	6.7	30
21	An overview of reactive hydride composite (RHC) for solid-state hydrogen storage materials. *International Journal of Hydrogen Energy*, **2021**, 46, 31674-31698	6.7	9
20	Hydrogen storage technologies for stationary and mobile applications: Review, analysis and perspectives. *Renewable and Sustainable Energy Reviews*, **2021**, 149, 111311	16.2	50
19	Hydrogen Storage. *Green Energy and Technology*, **2008**, 81-128	0.6	5
18	Hydrogen Storage Technologies. **2017**, 117-142		3
17	In Situ X-ray Diffraction Studies on the De/rehydrogenation Processes of the K2[Zn(NH2)4]-8LiH System. *Journal of Physical Chemistry C*, **2017**, 121, 1546-1551	3.8	10
16	Materials for hydrogen storage and the Na-Mg-B-H system. *AIMS Energy*, **2015**, 3, 75-100	1.8	5
15	Hydrogen storage properties and reaction mechanisms of K2Mn(NH2)4 8LiH system. *International Journal of Hydrogen Energy*, **2021**, 46, 40196-40196	6.7	1
14	Complex Hydrides. *Fuel Cells and Hydrogen Energy*, **2009**, 195-290		
13	Hydrogen storage in Li-Mg-N-H ternary system. **2018**, 318-323		
12	Overview of hydrogen storage properties of metallic amides and imides. **2018**, 331-332		
11	From Nanomaterials and Nanotechnologies to the Alternative Energy. *Progress in Physics of Metals*, **2018**, 19, 442-486	1.6	0
10	Nanostructured advanced materials for hydrogen storage. **2020**, 97-163		1
9	De-hydrogenation/Rehydrogenation Properties and Reaction Mechanism of AmZn(NH2)n-2nLiH Systems (A = Li, K, Na, and Rb). *Sustainability*, **2022**, 14, 1672	3.6	2
8	Effect of the particle size evolution on the hydrogen storage performance of KH doped Mg(NH2)2 + 2LiH. *Journal of Materials Science*,	4.3	
7	Hydrogen Storage: Liquid and Chemical. **2012**, 144-165		0
6	Pseudo-Binary Phase Diagram of LiNH2-MH (M = Na, K) Eutectic Mixture. *Molecules*, **2022**, 27, 4093	4.8	0

5	Challenges to developing materials for the transport and storage of hydrogen. **2022**, 14, 1214-1223	5
4	Improved hydrogen storage properties of Li-Mg-N-H system by lithium vanadium oxides. **2023**, 931, 167603	0
3	Synergistic Catalytic Effects of AlH3□TiF3 Composites on the Hydrogen Storage Performance of MgH2.	0
2	Amorphous alloys for hydrogen storage. **2023**, 941, 168945	1
1	Effects of Metal Borohydrides on the Dehydrogenation Kinetics of the Li□Mg□N□H Hydrogen-Storage System. **2023**, 127, 5255-5261	0