

Martin Dornheim

List of Publications by Citations

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

190 papers	7,917 citations	45 h-index	82 g-index
199 ext. papers	9,062 ext. citations	5.7 avg, IF	5.66 L-index

#	Paper	IF	Citations
190	Hydrogen storage in magnesium-based hydrides and hydride composites. <i>Scripta Materialia</i> , 2007 , 56, 841-846	5.6	388
189	Complex hydrides for hydrogen storage [New perspectives. <i>Materials Today</i> , 2014 , 17, 122-128	21.8	328
188	Hydrogen sorption properties of MgH ₂ -TiBH ₄ composites. <i>Acta Materialia</i> , 2007 , 55, 3951-3958	8.4	325
187	Application of hydrides in hydrogen storage and compression: Achievements, outlook and perspectives. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 7780-7808	6.7	273
186	Unexpected kinetic effect of MgB ₂ in reactive hydride composites containing complex borohydrides. <i>Journal of Alloys and Compounds</i> , 2007 , 440, L18-L21	5.7	268
185	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
184	Materials for hydrogen-based energy storage [past, recent progress and future outlook. <i>Journal of Alloys and Compounds</i> , 2020 , 827, 153548	5.7	264
183	Metal borohydrides and derivatives - synthesis, structure and properties. <i>Chemical Society Reviews</i> , 2017 , 46, 1565-1634	58.5	249
182	Tailoring properties of borohydrides for hydrogen storage: A review. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011 , 208, 1754-1773	1.6	218
181	Review of magnesium hydride-based materials: development and optimisation. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1	2.6	212
180	A reversible nanoconfined chemical reaction. <i>ACS Nano</i> , 2010 , 4, 3903-8	16.7	173
179	Role of additives in LiBH ₄ -MgH ₂ reactive hydride composites for sorption kinetics. <i>Acta Materialia</i> , 2010 , 58, 3381-3389	8.4	170
178	Boron-Nitrogen based hydrides and reactive composites for hydrogen storage. <i>Materials Today</i> , 2014 , 17, 129-135	21.8	145
177	Mg-based compounds for hydrogen and energy storage. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1	2.6	121
176	Pressure and Temperature Influence on the Desorption Pathway of the LiBH ₄ -MgH ₂ Composite System. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 15212-15217	3.8	114
175	Chemical and microstructural study of the oxygen passivation behaviour of nanocrystalline Mg and MgH ₂ . <i>Applied Surface Science</i> , 2006 , 252, 2334-2345	6.7	104
174	Formation of Ca(BH ₄) ₂ from Hydrogenation of CaH ₂ +MgB ₂ Composite. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 2743-2749	3.8	99

173	Mechanical and thermal decomposition of LiAlH_4 with metal halides. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 1033-1040	6.7	84
172	Complex hydrides for energy storage. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 7860-7874	6.7	82
171	Nanostructured materials for solid-state hydrogen storage: A review of the achievement of COST Action MP1103. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 14404-14428	6.7	74
170	Metal hydrides for concentrating solar thermal power energy storage. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1	2.6	71
169	Nanoconfined $2\text{LiBH}_4/\text{MgH}_2$ Prepared by Direct Melt Infiltration into Nanoporous Materials. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 10903-10910	3.8	69
168	Thermal and mechanically activated decomposition of LiAlH_4 . <i>Materials Research Bulletin</i> , 2008 , 43, 1263-1275	3.1	69
167	H-sorption in MgH_2 nanocomposites containing Fe or Ni with fluorine. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 409-412	5.7	66
166	Microstructural study of the $\text{LiBH}_4/\text{MgH}_2$ reactive hydride composite with and without Ti-isopropoxide additive. <i>Acta Materialia</i> , 2010 , 58, 5683-5694	8.4	65
165	Hydrogen-deuterium exchange experiments to probe the decomposition reaction of sodium alanate. <i>Physical Chemistry Chemical Physics</i> , 2008 , 10, 4045-55	3.6	65
164	Intermediate phases observed during decomposition of LiBH_4 . <i>Journal of Alloys and Compounds</i> , 2007 , 446-447, 301-305	5.7	65
163	Complex and liquid hydrides for energy storage. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1	2.6	64
162	Hydrogen Motion in Magnesium Hydride by NMR. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 19784-19790	3.8	64
161	Oxidation State and Local Structure of Ti-Based Additives in the Reactive Hydride Composite $2\text{LiBH}_4 + \text{MgH}_2$. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 3309-3317	3.8	63
160	Concept, Design and Manufacture of a Prototype Hydrogen Storage Tank Based on Sodium Alanate. <i>Chemical Engineering and Technology</i> , 2009 , 32, 1154-1163	2	63
159	In situ X-ray diffraction environments for high-pressure reactions. <i>Journal of Applied Crystallography</i> , 2015 , 48, 1234-1241	3.8	60
158	Hydrogen storage systems from waste Mg alloys. <i>Journal of Power Sources</i> , 2014 , 270, 554-563	8.9	60
157	Industrial production of light metal hydrides for hydrogen storage. <i>Scripta Materialia</i> , 2007 , 56, 847-851	5.6	60
156	Enhanced hydrogen sorption kinetics of magnesium by destabilized MgH_2 . <i>Catalysis Today</i> , 2007 , 120, 262-269	5.3	59

- 155 Thermal stability of nanocrystalline magnesium for hydrogen storage. *Journal of Alloys and Compounds*, **2005**, 404-406, 499-502 5.7 57
- 154 Synthesis of amorphous $\text{Mg}(\text{BH}_4)_2$ from MgB_2 and H_2 at room temperature. *Journal of Alloys and Compounds*, **2010**, 508, 212-215 5.7 55
- 153 LiFMgB_2 System for Reversible Hydrogen Storage. *Journal of Physical Chemistry C*, **2010**, 114, 10291-10296 3.8 54
- 152 Effect of Transition Metal Fluorides on the Sorption Properties and Reversible Formation of $\text{Ca}(\text{BH}_4)_2$. *Journal of Physical Chemistry C*, **2011**, 115, 2497-2504 3.8 54
- 151 Sorption properties of $\text{NaBH}_4/\text{MH}_2$ (M=Mg, Ti) powder systems. *International Journal of Hydrogen Energy*, **2010**, 35, 5434-5441 6.7 51
- 150 Hydrogen dissociation on oxide covered MgH_2 by catalytically active vacancies. *Applied Surface Science*, **2008**, 254, 2377-2384 6.7 51
- 149 Destabilization of LiBH_4 by nanoconfinement in PMMA/boBM polymer matrix for reversible hydrogen storage. *International Journal of Hydrogen Energy*, **2014**, 39, 5019-5029 6.7 50
- 148 Pressure Effect on the $2\text{NaH} + \text{MgB}_2$ Hydrogen Absorption Reaction. *Journal of Physical Chemistry C*, **2010**, 114, 21816-21823 3.8 50
- 147 On the chemical state and distribution of Zr- and V-based additives in reactive hydride composites. *Nanotechnology*, **2009**, 20, 204003 3.4 50
- 146 Bed geometries, fueling strategies and optimization of heat exchanger designs in metal hydride storage systems for automotive applications: A review. *International Journal of Hydrogen Energy*, **2014**, 39, 17054-17074 6.7 45
- 145 Nanoconfined $2\text{LiBH}_4/\text{MgH}_2/\text{TiCl}_3$ in carbon aerogel scaffold for reversible hydrogen storage. *International Journal of Hydrogen Energy*, **2013**, 38, 3275-3282 6.7 45
- 144 Empirical kinetic model of sodium alanate reacting system (I). Hydrogen absorption. *International Journal of Hydrogen Energy*, **2010**, 35, 6763-6772 6.7 45
- 143 Waste Mg-Al based alloys for hydrogen storage. *International Journal of Hydrogen Energy*, **2018**, 43, 16738-16748 3.8 44
- 142 Nanoconfined $2\text{LiBH}_4/\text{MgH}_2$ for reversible hydrogen storages: Reaction mechanisms, kinetics and thermodynamics. *International Journal of Hydrogen Energy*, **2013**, 38, 1932-1942 6.7 43
- 141 Tetrahydroborates: Development and Potential as Hydrogen Storage Medium. *Inorganics*, **2017**, 5, 74 2.9 41
- 140 $2\text{LiBH}_4/\text{MgH}_2$ in a Resorcinol/urfural Carbon Aerogel Scaffold for Reversible Hydrogen Storage. *Journal of Physical Chemistry C*, **2012**, 116, 1526-1534 3.8 41
- 139 Behavior of scaled-up sodium alanate hydrogen storage tanks during sorption. *International Journal of Hydrogen Energy*, **2012**, 37, 2807-2811 6.7 40
- 138 Experimental Evidence of $\text{Ca}[\text{B}_{12}\text{H}_{12}]$ Formation During Decomposition of a $\text{Ca}(\text{BH}_4)_2 + \text{MgH}_2$ Based Reactive Hydride Composite. *Journal of Physical Chemistry C*, **2011**, 115, 18010-18014 3.8 39

137	Reversible hydrogen storage in NaBH ₄ /Al composites. <i>Journal of Alloys and Compounds</i> , 2009 , 477, 76-80	5.7	39
136	Stress development in thin yttrium films on hard substrates during hydrogen loading. <i>Journal of Applied Physics</i> , 2003 , 93, 8958-8965	2.5	38
135	Optimization of hydrogen storage tubular tanks based on light weight hydrides. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 2825-2834	6.7	37
134	Activation of the reactive hydride composite 2NaBH ₄ + MgH ₂ . <i>Scripta Materialia</i> , 2011 , 64, 1035-1038	5.6	36
133	Solid State Hydrogen Storage in Alanates and Alanate-Based Compounds: A Review. <i>Metals</i> , 2018 , 8, 567	2.3	36
132	Dehydrogenation reactions of 2NaBH ₄ + MgH ₂ system. <i>International Journal of Hydrogen Energy</i> , 2011 , 36, 7891-7896	6.7	35
131	Effective nanoconfinement of 2LiBH ₄ /MgH ₂ via simply MgH ₂ premilling for reversible hydrogen storages. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 15614-15626	6.7	34
130	Characterization of metal hydrides by in-situ XRD. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 9899-9903	6.7	34
129	Recent Progress and New Perspectives on Metal Amide and Imide Systems for Solid-State Hydrogen Storage. <i>Energies</i> , 2018 , 11, 1027	3.1	33
128	2LiBH ₄ /MgH ₂ /0.13TiCl ₄ confined in nanoporous structure of carbon aerogel scaffold for reversible hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2014 , 599, 78-86	5.7	33
127	Hydrogen storage in Mg/LiBH ₄ composites catalyzed by FeF ₃ . <i>Journal of Power Sources</i> , 2014 , 267, 799-881	8.1	33
126	Economic potential of complex hydrides compared to conventional hydrogen storage systems. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 4204-4214	6.7	32
125	Ca(BH ₄) ₂ + MgH ₂ : Desorption Reaction and Role of Mg on Its Reversibility. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 3846-3852	3.8	32
124	Empirical kinetic model of sodium alanate reacting system (II). Hydrogen desorption. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 7539-7546	6.7	32
123	Thermal optimisation of metal hydride reactors for thermal energy storage applications. <i>Sustainable Energy and Fuels</i> , 2017 , 1, 1820-1829	5.8	32
122	Sorption behavior of the MgH ₂ /Mg ₂ FeH ₆ hydride storage system synthesized by mechanical milling followed by sintering. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 14618-14630	6.7	31
121	Compaction pressure influence on material properties and sorption behaviour of LiBH ₄ /MgH ₂ composite. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 8357-8366	6.7	31
120	Effects of heat transfer on the sorption kinetics of complex hydride reacting systems. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 1896-1903	6.7	30

- ¹¹⁹ Design, sorption behaviour and energy management in a sodium alanate-based lightweight hydrogen storage tank. *International Journal of Hydrogen Energy*, **2015**, 40, 2984-2988 6.7 27
- ¹¹⁸ Enhanced volumetric hydrogen density in sodium alanate by compaction. *Journal of Power Sources*, **2011**, 196, 9254-9259 8.9 27
- ¹¹⁷ Effect of Fe additive on the hydrogenation-dehydrogenation properties of $2\text{LiBH}_4/\text{MgB}_2/2\text{LiBH}_4/\text{MgH}_2$ system. *Journal of Power Sources*, **2015**, 284, 606-616 8.9 26
- ¹¹⁶ Improved hydrogen sorption of sodium alanate by optimized processing. *Journal of Alloys and Compounds*, **2008**, 465, 310-316 5.7 26
- ¹¹⁵ Near Ambient Condition Hydrogen Storage in a Synergized Tricomponent Hydride System. *Advanced Energy Materials*, **2017**, 7, 1602456 21.8 25
- ¹¹⁴ $\text{Ca}(\text{BH}_4)_2\text{-Mg}_2\text{NiH}_4$: on the pathway to a $\text{Ca}(\text{BH}_4)_2$ system with a reversible hydrogen cycle. *Chemical Communications*, **2016**, 52, 4836-9 5.8 24
- ¹¹³ Reaction kinetic behaviour with relation to crystallite/grain size dependency in the MgSiH_4 system. *Acta Materialia*, **2015**, 95, 244-253 8.4 23
- ¹¹² $2\text{LiBH}_4/\text{MgH}_2$ nanoconfined into carbon aerogel scaffold impregnated with ZrCl_4 for reversible hydrogen storage. *Materials Chemistry and Physics*, **2016**, 169, 136-141 4.4 23
- ¹¹¹ Chemical State, Distribution, and Role of Ti- and Nb-Based Additives on the $\text{Ca}(\text{BH}_4)_2$ System. *Journal of Physical Chemistry C*, **2013**, 117, 4394-4403 3.8 23
- ¹¹⁰ Characterization of Hydrogen Storage Materials and Systems with Photons and Neutrons. *Advanced Engineering Materials*, **2011**, 13, 730-736 3.5 23
- ¹⁰⁹ Design of a Nanometric AlTi Additive for MgB_2 -Based Reactive Hydride Composites with Superior Kinetic Properties. *Journal of Physical Chemistry C*, **2018**, 122, 7642-7655 3.8 22
- ¹⁰⁸ In Situ Formation of TiB_2 Nanoparticles for Enhanced Dehydrogenation/Hydrogenation Reaction Kinetics of $\text{LiBH}_4/\text{MgH}_2$ as a Reversible Solid-State Hydrogen Storage Composite System. *Journal of Physical Chemistry C*, **2018**, 122, 11671-11681 3.8 22
- ¹⁰⁷ Improvement of thermal stability and reduction of LiBH_4 /polymer host interaction of nanoconfined LiBH_4 for reversible hydrogen storage. *International Journal of Hydrogen Energy*, **2015**, 40, 392-402 6.7 21
- ¹⁰⁶ Fundamental Material Properties of the $2\text{LiBH}_4\text{-MgH}_2$ Reactive Hydride Composite for Hydrogen Storage: (I) Thermodynamic and Heat Transfer Properties. *Energies*, **2018**, 11, 1081 3.1 21
- ¹⁰⁵ Structural and kinetic investigation of the hydride composite $\text{Ca}(\text{BH}_4)_2 + \text{MgH}_2$ system doped with NbF_5 for solid-state hydrogen storage. *Physical Chemistry Chemical Physics*, **2015**, 17, 27328-42 3.6 21
- ¹⁰⁴ Combined x-ray photoelectron spectroscopy and scanning electron microscopy studies of the $\text{LiBH}_4/\text{MgH}_2$ reactive hydride composite with and without a Ti-based additive. *Journal of Applied Physics*, **2011**, 109, 014913 2.5 21
- ¹⁰³ Dynamics of porous and amorphous magnesium borohydride to understand solid state Mg-ion-conductors. *Scientific Reports*, **2020**, 10, 9080 4.9 20
- ¹⁰² Enhanced hydrogen uptake/release in $2\text{LiH}/\text{MgB}_2$ composite with titanium additives. *International Journal of Hydrogen Energy*, **2012**, 37, 1604-1612 6.7 20

101	Ca(BH ₄) ₂ /MgF ₂ Reversible Hydrogen Storage: Reaction Mechanisms and Kinetic Properties. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 3762-3768	3.8	20
100	Development of a modular room-temperature hydride storage system for vehicular applications. <i>Applied Physics A: Materials Science and Processing</i> , 2016 , 122, 1	2.6	20
99	Changing the dehydrogenation pathway of LiBH-MgHvia nanosized lithiated TiO. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 7455-7460	3.6	19
98	A novel catalytic route for hydrogenation/dehydrogenation of 2LiH + MgB ₂ via in situ formed core-shell Li _x TiO ₂ nanoparticles. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 12922-12933	13	19
97	Transition and Alkali Metal Complex Ternary Amides for Ammonia Synthesis and Decomposition. <i>Chemistry - A European Journal</i> , 2017 , 23, 9766-9771	4.8	18
96	Catalyzed Na ₂ LiAlH ₆ for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 771-774	5.7	18
95	Mg-based materials for hydrogen storage. <i>Journal of Magnesium and Alloys</i> , 2021 , 9, 1837-1837	8.8	18
94	First Direct Study of the Ammonolysis Reaction in the Most Common Alkaline and Alkaline Earth Metal Hydrides by in Situ SR-PXD. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 934-943	3.8	17
93	CO reutilization for methane production via a catalytic process promoted by hydrides. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 19825-19834	3.6	17
92	Thermodynamic properties and absorption-desorption kinetics of Mg ₈₇ Ni ₁₀ Al ₃ alloy synthesised by reactive ball milling under H ₂ atmosphere. <i>Journal of Alloys and Compounds</i> , 2005 , 404-406, 27-30	5.7	17
91	New synthesis route for ternary transition metal amides as well as ultrafast amide-hydride hydrogen storage materials. <i>Chemical Communications</i> , 2016 , 52, 5100-3	5.8	16
90	Structural analysis of calcium reactive hydride composite for solid state hydrogen storage. <i>Journal of Applied Crystallography</i> , 2014 , 47, 67-75	3.8	16
89	Mechanochemical synthesis of NaBH ₄ starting from NaH/MgB ₂ reactive hydride composite system. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 2363-2369	6.7	16
88	Fundamental Material Properties of the 2LiBH ₄ -MgH ₂ Reactive Hydride Composite for Hydrogen Storage: (II) Kinetic Properties. <i>Energies</i> , 2018 , 11, 1170	3.1	16
87	Effect of the Partial Replacement of CaH ₂ with CaF ₂ in the Mixed System CaH ₂ + MgB ₂ . <i>Journal of Physical Chemistry C</i> , 2014 , 118, 28409-28417	3.8	15
86	A search for new Mg- and K-containing alanates for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 4582-4586	6.7	15
85	Small-angle scattering investigations of magnesium hydride used as a hydrogen storage material. <i>Journal of Applied Crystallography</i> , 2007 , 40, s383-s387	3.8	15
84	SANS/USANS investigations of nanocrystalline MgH ₂ for reversible storage of hydrogen. <i>Physica B: Condensed Matter</i> , 2006 , 385-386, 630-632	2.8	15

83	Tuning the reaction mechanism and hydrogenation/dehydrogenation properties of $6\text{Mg}(\text{NH}_2)_2/9\text{LiH}$ system by adding LiBH_4 . <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 11920-11929	6.7	14
82	Structural study of a new B-rich phase obtained by partial hydrogenation of $2\text{NaH} + \text{MgB}_2$. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 10479-10484	6.7	14
81	Sorption properties and reversibility of Ti(IV) and Nb(V)-fluoride doped- $\text{Ca}(\text{BH}_4)_2/\text{MgH}_2$ system. <i>Journal of Alloys and Compounds</i> , 2015 , 622, 989-994	5.7	14
80	$3\text{CaH}_2 + 4\text{MgB}_2 + \text{CaF}_2$ Reactive Hydride Composite as a Potential Hydrogen Storage Material: Hydrogenation and Dehydrogenation Pathway. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 7207-7212	3.8	14
79	Thermodynamics of Metal Hydrides: Tailoring Reaction Enthalpies of Hydrogen Storage Materials 2011 ,		14
78	Phase stability and hydrogen desorption in a quinary equimolar mixture of light-metals borohydrides. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 16793-16803	6.7	14
77	The effect of $\text{Sr}(\text{OH})$ on the hydrogen storage properties of the $\text{Mg}(\text{NH})_2/2\text{LiH}$ system. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 8457-8464	3.6	13
76	Structural evolution upon decomposition of the $\text{LiAlH}_4 + \text{LiBH}_4$ system. <i>Journal of Alloys and Compounds</i> , 2014 , 615, S693-S697	5.7	13
75	Simultaneous desorption behavior of M borohydrides and Mg_2FeH_6 reactive hydride composites (M = Mg, then Li, Na, K, Ca). <i>Applied Physics Letters</i> , 2015 , 107, 073905	3.4	13
74	Microstructural study of hydrogen desorption in $2\text{NaBH}_4 + \text{MgH}_2$ reactive hydride composite. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 2382-2387	6.7	13
73	Microstructural analysis of hydrogen absorption in $2\text{NaH} + \text{MgB}_2$. <i>Scripta Materialia</i> , 2011 , 64, 351-354	5.6	13
72	New Insight on the Hydrogen Absorption Evolution of the MgBeH_3 System under Equilibrium Conditions. <i>Metals</i> , 2018 , 8, 967	2.3	13
71	Scale-up of milling in a 100 L device for processing of TiFeMn alloy for hydrogen storage applications: Procedure and characterization. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 29282-29290	6.7	12
70	Kinetic improvement on the CaH_2 -catalyzed $\text{Mg}(\text{NH}_2)_2 + 2\text{LiH}$ system. <i>Journal of Alloys and Compounds</i> , 2015 , 645, S284-S287	5.7	12
69	Conversion of magnesium waste into a complex magnesium hydride system: $\text{Mg}(\text{NH}_2)_2/2\text{LiH}$. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 1915-1923	5.8	12
68	$\text{KNH}-\text{KH}$: a metal amide-hydride solid solution. <i>Chemical Communications</i> , 2016 , 52, 11760-11763	5.8	12
67	Cyclic stability and structure of nanoconfined Ti-doped NaAlH_4 . <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 4159-4167	6.7	12
66	Ternary Amides Containing Transition Metals for Hydrogen Storage: A Case Study with Alkali Metal Amidozincates. <i>ChemSusChem</i> , 2015 , 8, 3777-82	8.3	12

65	Effect of NaH/MgB ₂ ratio on the hydrogen absorption kinetics of the system NaH + MgB ₂ . <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 5030-5036	6.7	12
64	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
63	Improved kinetic behaviour of Mg(NH) ₂ -2LiH doped with nanostructured K-modified-LiTiO for hydrogen storage. <i>Scientific Reports</i> , 2020 , 10, 8	4.9	12
62	Air-stable metal hydride-polymer composites of Mg(NH ₂) ₂ ·LiH and TPX. <i>Materials Today Energy</i> , 2018 , 10, 98-107	7	12
61	Effects of Stoichiometry on the H-Storage Properties of Mg(NH) ₂ -LiH-LiBH Tri-Component Systems. <i>Chemistry - an Asian Journal</i> , 2017 , 12, 1758-1764	4.5	11
60	Efficient Synthesis of Alkali Borohydrides from Mechanochemical Reduction of Borates Using Magnesium-Aluminum-Based Waste. <i>Metals</i> , 2019 , 9, 1061	2.3	11
59	Milling time effect of Reactive Hydride Composites of NaFNaHMgB ₂ investigated by in situ powder diffraction. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 13101-13108	6.7	11
58	Metal Hydride-Based Hydrogen Storage Tank Coupled with an Urban Concept Fuel Cell Vehicle: Off Board Tests. <i>Advanced Sustainable Systems</i> , 2018 , 2, 1800004	5.9	11
57	Influence of milling parameters on the sorption properties of the LiH-MgB ₂ system doped with TiCl ₃ . <i>Journal of Alloys and Compounds</i> , 2015 , 645, S299-S303	5.7	10
56	Li NH-LiBH : a Complex Hydride with Near Ambient Hydrogen Adsorption and Fast Lithium Ion Conduction. <i>Chemistry - A European Journal</i> , 2018 , 24, 1342-1347	4.8	10
55	Transport phenomena versus intrinsic kinetics: Hydrogen sorption limiting sub-process in metal hydride beds. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 18952-18957	6.7	10
54	In Situ X-ray Diffraction Studies on the De/rehydrogenation Processes of the K ₂ [Zn(NH ₂) ₄]-8LiH System. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 1546-1551	3.8	10
53	Reactive Hydride Composite of Mg ₂ NiH ₄ with Borohydrides Eutectic Mixtures. <i>Crystals</i> , 2018 , 8, 90	2.3	9
52	Sorption and desorption properties of a CaH ₂ /MgB ₂ /CaF ₂ reactive hydride composite as potential hydrogen storage material. <i>Journal of Solid State Chemistry</i> , 2011 , 184, 3104-3109	3.3	9
51	Tailoring Reaction Enthalpies of Hydrides 2010 , 187-214		9
50	Nanoconfinement effects on hydrogen storage properties of MgH ₂ and LiBH ₄ . <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 23723-23723	6.7	9
49	Hydrogen storage properties of eutectic metal borohydrides melt-infiltrated into porous Al scaffolds. <i>Journal of Alloys and Compounds</i> , 2019 , 775, 474-480	5.7	9
48	Synthesis, structures and thermal decomposition of ammine MBH complexes (M = Li, Na, Ca). <i>Dalton Transactions</i> , 2017 , 46, 7770-7781	4.3	8

47	Insights into the Rb-Mg-N-H System: an Ordered Mixed Amide/Imide Phase and a Disordered Amide/Hydride Solid Solution. <i>Inorganic Chemistry</i> , 2018 , 57, 3197-3205	5.1	8
46	A new potassium-based intermediate and its role in the desorption properties of the K-Mg-N-H system. <i>Physical Chemistry Chemical Physics</i> , 2016 , 18, 3910-20	3.6	8
45	In situ synchrotron radiation powder X-ray diffraction study of the 2LiNH ₂ + LiH + KBH ₄ system. <i>Journal of Alloys and Compounds</i> , 2013 , 580, S278-S281	5.7	8
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