Martin Dornheim

List of Publications by Year in Descending Order

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	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
189	Modeling the thermodynamics of the FeTi hydrogenation under para-equilibrium: An ab-initio and experimental study. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2022**, 77, 102426	1.9	0
188	Enhanced Hydrogen Storage Properties of Li-RHC System with In-House Synthesized AlTi3 Nanoparticles. *Energies*, **2021**, 14, 7853	3.1	1
187	Hydrogen storage properties and reaction mechanisms of K2Mn(NH2)4–LiH system. *International Journal of Hydrogen Energy*, **2021**, 46, 40196-40196	6.7	1
186	High-temperature thermochemical energy storage using metal hydrides: Destabilisation of calcium hydride with silicon. *Journal of Alloys and Compounds*, **2021**, 858, 158229	5.7	7
185	Nanoconfinement effects on hydrogen storage properties of MgH2 and LiBH4. *International Journal of Hydrogen Energy*, **2021**, 46, 23723-23723	6.7	9
184	Scaling up Metal Hydrides for Real-Scale Applications: Achievements, Challenges and Outlook. *Inorganics*, **2021**, 9, 37	2.9	0
183	A comprehensive study on lithium-based reactive hydride composite (Li-RHC) as a reversible solid-state hydrogen storage system toward potential mobile applications.. *RSC Advances*, **2021**, 11, 23122-23135	3.7	4
182	HYDRIDE4MOBILITY: An EU HORIZON 2020 project on hydrogen powered fuel cell utility vehicles using metal hydrides in hydrogen storage and refuelling systems. *International Journal of Hydrogen Energy*, **2021**,	6.7	8
181	Mg-based materials for hydrogen storage. *Journal of Magnesium and Alloys*, **2021**, 9, 1837-1837	8.8	18
180	Hydrogenation via a low energy mechanochemical approach: the MgB2 case. *JPhys Energy*, **2021**, 3, 044001	4.9	2
179	High Hydrogen Mobility in an Amide–Borohydride Compound Studied by Quasielastic Neutron Scattering. *Advanced Engineering Materials*, **2021**, 23, 2100620	3.5	0
178	Effects of Ni-loading contents on dehydrogenation kinetics and reversibility of Mg2FeH6. *International Journal of Hydrogen Energy*, **2021**, 46, 32099-32109	6.7	2
177	High-pressure cell for in situ neutron studies of hydrogen storage materials. *Journal of Neutron Research*, **2020**, 21, 125-135	0.5	0
176	Dynamics of porous and amorphous magnesium borohydride to understand solid state Mg-ion-conductors. *Scientific Reports*, **2020**, 10, 9080	4.9	20
175	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
174	Enhanced Stability of Li-RHC Embedded in an Adaptive TPX–Polymer Scaffold. *Materials*, **2020**, 13,	3.5	6

173	Improved kinetic behaviour of Mg(NH)-2LiH doped with nanostructured K-modified-LiTiO for hydrogen storage. *Scientific Reports*, **2020**, 10, 8	4.9	12
172	CO reactivity with MgNiH synthesized by in situ monitoring of mechanical milling. *Physical Chemistry Chemical Physics*, **2020**, 22, 1944-1952	3.6	7
171	Materials for hydrogen-based energy storage □past, recent progress and future outlook. *Journal of Alloys and Compounds*, **2020**, 827, 153548	5.7	264
170	Using the Emission of Muonic X-rays as a Spectroscopic Tool for the Investigation of the Local Chemistry of Elements. *Nanomaterials*, **2020**, 10,	5.4	3
169	Efficient Synthesis of Alkali Borohydrides from Mechanochemical Reduction of Borates Using Magnesium□Aluminum-Based Waste. *Metals*, **2019**, 9, 1061	2.3	11
168	Magnesium based materials for hydrogen based energy storage: Past, present and future. *International Journal of Hydrogen Energy*, **2019**, 44, 7809-7859	6.7	264
167	Hydrogen sorption kinetics, hydrogen permeability, and thermal properties of compacted 2LiBH4MgH2 doped with activated carbon nanofibers. *International Journal of Hydrogen Energy*, **2019**, 44, 15218-15227	6.7	7
166	Effect of the Process Parameters on the Energy Transfer during the Synthesis of the 2LiBH4-MgH2 Reactive Hydride Composite for Hydrogen Storage. *Metals*, **2019**, 9, 349	2.3	7
165	Scale-up of milling in a 100 L device for processing of TiFeMn alloy for hydrogen storage applications: Procedure and characterization. *International Journal of Hydrogen Energy*, **2019**, 44, 29282-29290	6.7	12
164	A new mutually destabilized reactive hydride system: LiBH4□Mg2NiH4. *Journal of Energy Chemistry*, **2019**, 34, 240-254	12	7
163	Tuning the reaction mechanism and hydrogenation/dehydrogenation properties of 6Mg(NH2)29LiH system by adding LiBH4. *International Journal of Hydrogen Energy*, **2019**, 44, 11920-11929	6.7	14
162	Exploring Ternary and Quaternary Mixtures in the LiBH -NaBH -KBH -Mg(BH) -Ca(BH) System. *ChemPhysChem*, **2019**, 20, 1348-1359	3.2	7
161	CO reutilization for methane production via a catalytic process promoted by hydrides. *Physical Chemistry Chemical Physics*, **2019**, 21, 19825-19834	3.6	17
160	Enhancement Effect of Bimetallic Amide K2Mn(NH2)4 and In-Situ Formed KH and Mn4N on the Dehydrogenation/Hydrogenation Properties of Li□MgNH System. *Energies*, **2019**, 12, 2779	3.1	5
159	Application of hydrides in hydrogen storage and compression: Achievements, outlook and perspectives. *International Journal of Hydrogen Energy*, **2019**, 44, 7780-7808	6.7	273
158	Hydrogen storage properties of eutectic metal borohydrides melt-infiltrated into porous Al scaffolds. *Journal of Alloys and Compounds*, **2019**, 775, 474-480	5.7	9
157	Complex hydrides for energy storage. *International Journal of Hydrogen Energy*, **2019**, 44, 7860-7874	6.7	82
156	Insights into the Rb-Mg-N-H System: an Ordered Mixed Amide/Imide Phase and a Disordered Amide/Hydride Solid Solution. *Inorganic Chemistry*, **2018**, 57, 3197-3205	5.1	8

155	Waste Mg-Al based alloys for hydrogen storage. *International Journal of Hydrogen Energy*, **2018**, 43, 16738-16748	3.7	44
154	Design of a Nanometric AlTi Additive for MgB2-Based Reactive Hydride Composites with Superior Kinetic Properties. *Journal of Physical Chemistry C*, **2018**, 122, 7642-7655	3.8	22
153	Li NH-LiBH : a Complex Hydride with Near Ambient Hydrogen Adsorption and Fast Lithium Ion Conduction. *Chemistry - A European Journal*, **2018**, 24, 1342-1347	4.8	10
152	A hydride composite featuring mutual destabilisation and reversible boron exchange: Ca(BH4)2Mg2NiH4. *Journal of Materials Chemistry A*, **2018**, 6, 17929-17946	13	5
151	Reactive Hydride Composite of Mg2NiH4 with Borohydrides Eutectic Mixtures. *Crystals*, **2018**, 8, 90	2.3	9
150	Recent Progress and New Perspectives on Metal Amide and Imide Systems for Solid-State Hydrogen Storage. *Energies*, **2018**, 11, 1027	3.1	33
149	Fundamental Material Properties of the 2LiBH4-MgH2 Reactive Hydride Composite for Hydrogen Storage: (I) Thermodynamic and Heat Transfer Properties. *Energies*, **2018**, 11, 1081	3.1	21
148	In Situ Formation of TiB2 Nanoparticles for Enhanced Dehydrogenation/Hydrogenation Reaction Kinetics of LiBH4MgH2 as a Reversible Solid-State Hydrogen Storage Composite System. *Journal of Physical Chemistry C*, **2018**, 122, 11671-11681	3.8	22
147	Engineering Solutions in Scale-Up and Tank Design for Metal Hydrides. *Materials Science Forum*, **2018**, 941, 2220-2225	0.4	2
146	New Insight on the Hydrogen Absorption Evolution of the MgFeH System under Equilibrium Conditions. *Metals*, **2018**, 8, 967	2.3	13
145	Fundamental Material Properties of the 2LiBH4-MgH2 Reactive Hydride Composite for Hydrogen Storage: (II) Kinetic Properties. *Energies*, **2018**, 11, 1170	3.1	16
144	Air-stable metal hydride-polymer composites of Mg(NH2)2LiH and TPX. *Materials Today Energy*, **2018**, 10, 98-107	7	12
143	Solid State Hydrogen Storage in Alanates and Alanate-Based Compounds: A Review. *Metals*, **2018**, 8, 567	2.3	36
142	Metal Hydride-Based Hydrogen Storage Tank Coupled with an Urban Concept Fuel Cell Vehicle: Off Board Tests. *Advanced Sustainable Systems*, **2018**, 2, 1800004	5.9	11
141	Phase stability and hydrogen desorption in a quinary equimolar mixture of light-metals borohydrides. *International Journal of Hydrogen Energy*, **2018**, 43, 16793-16803	6.7	14
140	Tracking the Active Catalyst for Iron-Based Ammonia Decomposition by In Situ Synchrotron Diffraction Studies. *ChemCatChem*, **2018**, 10, 4465-4472	5.2	7
139	Hydrogenation Study of NaF/NaH/MgB2 Reactive Hydride Composites. *Journal of Physical Chemistry C*, **2017**, 121, 4093-4102	3.8	3
138	Changing the dehydrogenation pathway of LiBH-MgHvia nanosized lithiated TiO. *Physical Chemistry Chemical Physics*, **2017**, 19, 7455-7460	3.6	19

137	Synthesis of Mg2FeD6 under low pressure conditions for Mg2FeH6 hydrogen storage studies. *International Journal of Hydrogen Energy*, **2017**, 42, 11422-11428	6.7	7
136	Near Ambient Condition Hydrogen Storage in a Synergized Tricomponent Hydride System. *Advanced Energy Materials*, **2017**, 7, 1602456	21.8	25
135	Metal borohydrides and derivatives - synthesis, structure and properties. *Chemical Society Reviews*, **2017**, 46, 1565-1634	58.5	249
134	The effect of Sr(OH) on the hydrogen storage properties of the Mg(NH)-2LiH system. *Physical Chemistry Chemical Physics*, **2017**, 19, 8457-8464	3.6	13
133	Effects of Stoichiometry on the H -Storage Properties of Mg(NH) -LiH-LiBH Tri-Component Systems. *Chemistry - an Asian Journal*, **2017**, 12, 1758-1764	4.5	11
132	Transition and Alkali Metal Complex Ternary Amides for Ammonia Synthesis and Decomposition. *Chemistry - A European Journal*, **2017**, 23, 9766-9771	4.8	18
131	A novel catalytic route for hydrogenation□dehydrogenation of 2LiH + MgB2via in situ formed core□shell LixTiO2 nanoparticles. *Journal of Materials Chemistry A*, **2017**, 5, 12922-12933	13	19
130	Synthesis, structures and thermal decomposition of ammine MBH complexes (M = Li, Na, Ca). *Dalton Transactions*, **2017**, 46, 7770-7781	4.3	8
129	Kinetic alteration of the 6Mg(NH)-9LiH-LiBH system by co-adding YCl and LiN. *Physical Chemistry Chemical Physics*, **2017**, 19, 32105-32115	3.6	8
128	Tetrahydroborates: Development and Potential as Hydrogen Storage Medium. *Inorganics*, **2017**, 5, 74	2.9	41
127	Thermodynamic Properties and Reversible Hydrogenation of LiBH4□Mg2FeH6 Composite Materials. *Inorganics*, **2017**, 5, 81	2.9	1
126	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
125	Thermal optimisation of metal hydride reactors for thermal energy storage applications. *Sustainable Energy and Fuels*, **2017**, 1, 1820-1829	5.8	32
124	Optimization and comprehensive characterization of metal hydride based hydrogen storage systems using in-situ Neutron Radiography. *Journal of Power Sources*, **2016**, 328, 567-577	8.9	5
123	KNH-KH: a metal amide-hydride solid solution. *Chemical Communications*, **2016**, 52, 11760-11763	5.8	12
122	Cyclic stability and structure of nanoconfined Ti-doped NaAlH 4. *International Journal of Hydrogen Energy*, **2016**, 41, 4159-4167	6.7	12
121	Review of magnesium hydride-based materials: development and optimisation. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	212
120	Mg-based compounds for hydrogen and energy storage. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	121

119	Metal hydrides for concentrating solar thermal power energy storage. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	71
118	2LiBH4MgH2 nanoconfined into carbon aerogel scaffold impregnated with ZrCl4 for reversible hydrogen storage. *Materials Chemistry and Physics*, **2016**, 169, 136-141	4.4	23
117	New synthesis route for ternary transition metal amides as well as ultrafast amide-hydride hydrogen storage materials. *Chemical Communications*, **2016**, 52, 5100-3	5.8	16
116	Complex and liquid hydrides for energy storage. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	64
115	A new potassium-based intermediate and its role in the desorption properties of the K-Mg-N-H system. *Physical Chemistry Chemical Physics*, **2016**, 18, 3910-20	3.6	8
114	Ca(BH4)2-Mg2NiH4: on the pathway to a Ca(BH4)2 system with a reversible hydrogen cycle. *Chemical Communications*, **2016**, 52, 4836-9	5.8	24
113	Nanostructured materials for solid-state hydrogen storage: A review of the achievement of COST Action MP1103. *International Journal of Hydrogen Energy*, **2016**, 41, 14404-14428	6.7	74
112	Development of a modular room-temperature hydride storage system for vehicular applications. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	20
111	Milling time effect of Reactive Hydride Composites of NaFNaHMgB2 investigated by in situ powder diffraction. *International Journal of Hydrogen Energy*, **2016**, 41, 13101-13108	6.7	11
110	First Direct Study of the Ammonolysis Reaction in the Most Common Alkaline and Alkaline Earth Metal Hydrides by in Situ SR-PXD. *Journal of Physical Chemistry C*, **2015**, 119, 934-943	3.8	17
109	Reaction kinetic behaviour with relation to crystallite/grain size dependency in the MgSiH system. *Acta Materialia*, **2015**, 95, 244-253	8.4	23
108	Scattering influences in quantitative fission neutron radiography for the in situ analysis of hydrogen distribution in metal hydrides. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2015**, 797, 158-164	1.2	3
107	Synchrotron Diffraction Studies of Hydrogen Absorption/Desorption on CaH2 + MgB2 Reactive Hydride Composite Mixed With Fluorinated Compounds. *Journal of Physical Chemistry C*, **2015**, 119, 11430-11437	3.8	4
106	Effect of Fe additive on the hydrogenation-dehydrogenation properties of 2LiH+MgB 2 /2LiBH 4 +MgH 2 system. *Journal of Power Sources*, **2015**, 284, 606-616	8.9	26
105	On the Hydrogenation of a NaH/AlB2 Mixture. *Journal of Physical Chemistry C*, **2015**, 119, 22826-22831	3.8	2
104	Kinetic improvement on the CaH2-catalyzed Mg(NH2)2+ 2LiH system. *Journal of Alloys and Compounds*, **2015**, 645, S284-S287	5.7	12
103	In situX-ray diffraction environments for high-pressure reactions. *Journal of Applied Crystallography* , **2015**, 48, 1234-1241	3.8	60
102	Influence of milling parameters on the sorption properties of the LiHMgB2 system doped with TiCl3. *Journal of Alloys and Compounds*, **2015**, 645, S299-S303	5.7	10

101	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
100	Simultaneous desorption behavior of M borohydrides and Mg2FeH6 reactive hydride composites (M = Mg, then Li, Na, K, Ca). *Applied Physics Letters*, **2015**, 107, 073905	3.4	13
99	Sorption properties and reversibility of Ti(IV) and Nb(V)-fluoride doped-Ca(BH4)2–MgH2 system. *Journal of Alloys and Compounds*, **2015**, 622, 989-994	5.7	14
98	Ternary Amides Containing Transition Metals for Hydrogen Storage: A Case Study with Alkali Metal Amidozincates. *ChemSusChem*, **2015**, 8, 3777-82	8.3	12
97	Structural and kinetic investigation of the hydride composite Ca(BH4)2 + MgH2 system doped with NbF5 for solid-state hydrogen storage. *Physical Chemistry Chemical Physics*, **2015**, 17, 27328-42	3.6	21
96	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
95	Transport phenomena versus intrinsic kinetics: Hydrogen sorption limiting sub-process in metal hydride beds. *International Journal of Hydrogen Energy*, **2014**, 39, 18952-18957	6.7	10
94	Effective nanoconfinement of 2LiBH 4 –MgH 2 via simply MgH 2 premilling for reversible hydrogen storages. *International Journal of Hydrogen Energy*, **2014**, 39, 15614-15626	6.7	34
93	Hydrogen storage systems from waste Mg alloys. *Journal of Power Sources*, **2014**, 270, 554-563	8.9	60
92	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
91	New insights into the thermal desorption of the 2LiNH2–KBH4–LiH mixture. *International Journal of Hydrogen Energy*, **2014**, 39, 17075-17082	6.7	1
90	2LiBH4–MgH2–0.13TiCl4 confined in nanoporous structure of carbon aerogel scaffold for reversible hydrogen storage. *Journal of Alloys and Compounds*, **2014**, 599, 78-86	5.7	33
89	Complex hydrides for hydrogen storage – new perspectives. *Materials Today*, **2014**, 17, 122-128	21.8	328
88	Structural evolution upon decomposition of the LiAlH4+LiBH4 system. *Journal of Alloys and Compounds*, **2014**, 615, S693-S697	5.7	13
87	NaAlH4 production from waste aluminum by reactive ball milling. *International Journal of Hydrogen Energy*, **2014**, 39, 9877-9882	6.7	5
86	Hydrogen storage in Mg–LiBH4 composites catalyzed by FeF3. *Journal of Power Sources*, **2014**, 267, 799-80	8.9	33
85	Boron–nitrogen based hydrides and reactive composites for hydrogen storage. *Materials Today*, **2014**, 17, 129-135	21.8	145
84	Structural analysis of calcium reactive hydride composite for solid state hydrogen storage. *Journal of Applied Crystallography*, **2014**, 47, 67-75	3.8	16

83	Effect of the Partial Replacement of CaH2 with CaF2 in the Mixed System CaH2 + MgB2. *Journal of Physical Chemistry C*, **2014**, 118, 28409-28417	3.8	15
82	Effect of NaH/MgB2 ratio on the hydrogen absorption kinetics of the system NaH + MgB2. *International Journal of Hydrogen Energy*, **2014**, 39, 5030-5036	6.7	12
81	Destabilization of LiBH4 by nanoconfinement in PMMA□oBBM polymer matrix for reversible hydrogen storage. *International Journal of Hydrogen Energy*, **2014**, 39, 5019-5029	6.7	50
80	Characterization of metal hydrides by in-situ XRD. *International Journal of Hydrogen Energy*, **2014**, 39, 9899-9903	6.7	34
79	Structural study of a new B-rich phase obtained by partial hydrogenation of 2NaH□+□MgB2. *International Journal of Hydrogen Energy*, **2013**, 38, 10479-10484	6.7	14
78	Sorption behavior of the MgH2□Mg2FeH6 hydride storage system synthesized by mechanical milling followed by sintering. *International Journal of Hydrogen Energy*, **2013**, 38, 14618-14630	6.7	31
77	Mechanochemical synthesis of NaBH4 starting from NaH□MgB2 reactive hydride composite system. *International Journal of Hydrogen Energy*, **2013**, 38, 2363-2369	6.7	16
76	Nanoconfined 2LiBH4□MgH2□TiCl3 in carbon aerogel scaffold for reversible hydrogen storage. *International Journal of Hydrogen Energy*, **2013**, 38, 3275-3282	6.7	45
75	Nanoconfined 2LiBH4□MgH2 for reversible hydrogen storages: Reaction mechanisms, kinetics and thermodynamics. *International Journal of Hydrogen Energy*, **2013**, 38, 1932-1942	6.7	43
74	In situ synchrotron radiation powder X-ray diffraction study of the 2LiNH2 + LiH + KBH4 system. *Journal of Alloys and Compounds*, **2013**, 580, S278-S281	5.7	8
73	Compaction pressure influence on material properties and sorption behaviour of LiBH4□MgH2 composite. *International Journal of Hydrogen Energy*, **2013**, 38, 8357-8366	6.7	31
72	Chemical State, Distribution, and Role of Ti- and Nb-Based Additives on the Ca(BH4)2 System. *Journal of Physical Chemistry C*, **2013**, 117, 4394-4403	3.8	23
71	Hydrogen Sorption in the LiH□LiF□MgB2 System. *Journal of Physical Chemistry C*, **2013**, 117, 17360-17366	3.8	8
70	Ca(BH4)2 + MgH2: Desorption Reaction and Role of Mg on Its Reversibility. *Journal of Physical Chemistry C*, **2013**, 117, 3846-3852	3.8	32
69	Effect of group IV elements on the thermodynamic property of NaH + Al. *Renewable Energy*, **2012**, 43, 172-178	8.1	1
68	3CaH2 + 4MgB2 + CaF2 Reactive Hydride Composite as a Potential Hydrogen Storage Material: Hydrogenation and Dehydrogenation Pathway. *Journal of Physical Chemistry C*, **2012**, 116, 7207-7212	3.8	14
67	Influence of Stoichiometry on the Hydrogen Sorption Behavior in the LiF□MgB2 System. *Journal of Physical Chemistry C*, **2012**, 116, 7010-7015	3.8	8
66	2LiBH4□MgH2 in a Resorcinol□Furfural Carbon Aerogel Scaffold for Reversible Hydrogen Storage. *Journal of Physical Chemistry C*, **2012**, 116, 1526-1534	3.8	41

65	Optimization of hydrogen storage tubular tanks based on light weight hydrides. *International Journal of Hydrogen Energy*, **2012**, 37, 2825-2834	6.7	37
64	Behavior of scaled-up sodium alanate hydrogen storage tanks during sorption. *International Journal of Hydrogen Energy*, **2012**, 37, 2807-2811	6.7	40
63	Enhanced hydrogen uptake/release in 2LiH MgB2 composite with titanium additives. *International Journal of Hydrogen Energy*, **2012**, 37, 1604-1612	6.7	20
62	Microstructural study of hydrogen desorption in 2NaBH4 + MgH2 reactive hydride composite. *International Journal of Hydrogen Energy*, **2012**, 37, 2382-2387	6.7	13
61	Economic potential of complex hydrides compared to conventional hydrogen storage systems. *International Journal of Hydrogen Energy*, **2012**, 37, 4204-4214	6.7	32
60	Thermodynamics of Metal Hydrides: Tailoring Reaction Enthalpies of Hydrogen Storage Materials **2011**,		14
59	Combined x-ray photoelectron spectroscopy and scanning electron microscopy studies of the LiBH4 MgH2 reactive hydride composite with and without a Ti-based additive. *Journal of Applied Physics*, **2011**, 109, 014913	2.5	21
58	Enhanced volumetric hydrogen density in sodium alanate by compaction. *Journal of Power Sources*, **2011**, 196, 9254-9259	8.9	27
57	Sorption and desorption properties of a CaH2/MgB2/CaF2 reactive hydride composite as potential hydrogen storage material. *Journal of Solid State Chemistry*, **2011**, 184, 3104-3109	3.3	9
56	Microstructural analysis of hydrogen absorption in 2NaH+MgB2. *Scripta Materialia*, **2011**, 64, 351-354	5.6	13
55	Activation of the reactive hydride composite 2NaBH4 + MgH2. *Scripta Materialia*, **2011**, 64, 1035-1038	5.6	36
54	Tailoring properties of borohydrides for hydrogen storage: A review. *Physica Status Solidi (A) Applications and Materials Science*, **2011**, 208, 1754-1773	1.6	218
53	Characterization of Hydrogen Storage Materials and Systems with Photons and Neutrons. *Advanced Engineering Materials*, **2011**, 13, 730-736	3.5	23
52	Effect of Transition Metal Fluorides on the Sorption Properties and Reversible Formation of Ca(BH4)2. *Journal of Physical Chemistry C*, **2011**, 115, 2497-2504	3.8	54
51	Nanoconfined 2LiBH4 MgH2 Prepared by Direct Melt Infiltration into Nanoporous Materials. *Journal of Physical Chemistry C*, **2011**, 115, 10903-10910	3.8	69
50	Ca(BH4)2 MgF2 Reversible Hydrogen Storage: Reaction Mechanisms and Kinetic Properties. *Journal of Physical Chemistry C*, **2011**, 115, 3762-3768	3.8	20
49	Experimental Evidence of Ca[B12H12] Formation During Decomposition of a Ca(BH4)2 + MgH2 Based Reactive Hydride Composite. *Journal of Physical Chemistry C*, **2011**, 115, 18010-18014	3.8	39
48	Dehydrogenation reactions of 2NaBH4 + MgH2 system. *International Journal of Hydrogen Energy*, **2011**, 36, 7891-7896	6.7	35

47	A reversible nanoconfined chemical reaction. *ACS Nano*, **2010**, 4, 3903-8	16.7	173
46	LiF–MgB2 System for Reversible Hydrogen Storage. *Journal of Physical Chemistry C*, **2010**, 114, 10291-10296	4.8	54
45	Oxidation State and Local Structure of Ti-Based Additives in the Reactive Hydride Composite 2LiBH4 + MgH2. *Journal of Physical Chemistry C*, **2010**, 114, 3309-3317	3.8	63
44	Pressure Effect on the 2NaH + MgB2 Hydrogen Absorption Reaction. *Journal of Physical Chemistry C*, **2010**, 114, 21816-21823	3.8	50
43	Synthesis of amorphous Mg(BH4)2 from MgB2 and H2 at room temperature. *Journal of Alloys and Compounds*, **2010**, 508, 212-215	5.7	55
42	Pressure and Temperature Influence on the Desorption Pathway of the LiBH4–MgH2 Composite System. *Journal of Physical Chemistry C*, **2010**, 114, 15212-15217	3.8	114
41	Tailoring Reaction Enthalpies of Hydrides **2010**, 187-214		9
40	Sorption properties of NaBH4/MH2 (M=Mg, Ti) powder systems. *International Journal of Hydrogen Energy*, **2010**, 35, 5434-5441	6.7	51
39	Empirical kinetic model of sodium alanate reacting system (I). Hydrogen absorption. *International Journal of Hydrogen Energy*, **2010**, 35, 6763-6772	6.7	45
38	Empirical kinetic model of sodium alanate reacting system (II). Hydrogen desorption. *International Journal of Hydrogen Energy*, **2010**, 35, 7539-7546	6.7	32
37	Role of additives in LiBH4–MgH2 reactive hydride composites for sorption kinetics. *Acta Materialia*, **2010**, 58, 3381-3389	8.4	170
36	Microstructural study of the LiBH4–MgH2 reactive hydride composite with and without Ti-isopropoxide additive. *Acta Materialia*, **2010**, 58, 5683-5694	8.4	65
35	On the chemical state and distribution of Zr- and V-based additives in reactive hydride composites. *Nanotechnology*, **2009**, 20, 204003	3.4	50
34	Modellgestützte verfahrenstechnische Berechnung eines Metallhydridspeichers auf Natriumalanatbasis im Technikumsmaßstab. *Chemie-Ingenieur-Technik*, **2009**, 81, 645-654	0.8	5
33	Concept, Design and Manufacture of a Prototype Hydrogen Storage Tank Based on Sodium Alanate. *Chemical Engineering and Technology*, **2009**, 32, 1154-1163	2	63
32	A search for new Mg- and K-containing alanates for hydrogen storage. *International Journal of Hydrogen Energy*, **2009**, 34, 4582-4586	6.7	15
31	Effects of heat transfer on the sorption kinetics of complex hydride reacting systems. *International Journal of Hydrogen Energy*, **2009**, 34, 1896-1903	6.7	30
30	Investigation of (Mg, Al, Li, H)-based hydride and alanate mixtures produced by reactive ball milling. *Journal of Alloys and Compounds*, **2009**, 476, 425-428	5.7	8

29	Reversible hydrogen storage in NaF□Al composites. *Journal of Alloys and Compounds*, **2009**, 477, 76-80	5.7	39
28	Thermal and mechanically activated decomposition of LiAlH4. *Materials Research Bulletin*, **2008**, 43, 1263-1275	5.1	69
27	Hydrogen Motion in Magnesium Hydride by NMR. *Journal of Physical Chemistry C*, **2008**, 112, 19784-19790	3.8	64
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