Thomas Klassen

List of Publications by Citations

249 papers	10,611 citations	49 h-index	96 g-index
270 ext. papers	11,726 ext. citations	4.7 avg, IF	6.16 L-index

#	Paper	IF	Citations
249	Metal oxides as catalysts for improved hydrogen sorption in nanocrystalline Mg-based materials. *Journal of Alloys and Compounds*, **2001**, 315, 237-242	5.7	618
248	Fast hydrogen sorption kinetics of nanocrystalline Mg using Nb2O5 as catalyst. *Scripta Materialia*, **2003**, 49, 213-217	5.6	464
247	Cold spraying □A materials perspective. *Acta Materialia*, **2016**, 116, 382-407	8.4	417
246	Hydrogen storage in magnesium-based hydrides and hydride composites. *Scripta Materialia*, **2007**, 56, 841-846	5.6	388
245	From Particle Acceleration to Impact and Bonding in Cold Spraying. *Journal of Thermal Spray Technology*, **2009**, 18, 794-808	2.5	364
244	Effect of Nb2O5 content on hydrogen reaction kinetics of Mg. *Journal of Alloys and Compounds*, **2004**, 364, 242-246	5.7	338
243	Hydrogen sorption properties of MgH2□iBH4 composites. *Acta Materialia*, **2007**, 55, 3951-3958	8.4	325
242	Application of hydrides in hydrogen storage and compression: Achievements, outlook and perspectives. *International Journal of Hydrogen Energy*, **2019**, 44, 7780-7808	6.7	273
241	Unexpected kinetic effect of MgB2 in reactive hydride composites containing complex borohydrides. *Journal of Alloys and Compounds*, **2007**, 440, L18-L21	5.7	268
240	Kinetic investigation of the effect of milling time on the hydrogen sorption reaction of magnesium catalyzed with different Nb2O5 contents. *Journal of Alloys and Compounds*, **2006**, 407, 249-255	5.7	252
239	On Parameter Selection in Cold Spraying. *Journal of Thermal Spray Technology*, **2011**, 20, 1161-1176	2.5	224
238	Catalytic mechanism of transition-metal compounds on Mg hydrogen sorption reaction. *Journal of Physical Chemistry B*, **2006**, 110, 11020-4	3.4	220
237	MgH2 with Nb2O5 as additive, for hydrogen storage: Chemical, structural and kinetic behavior with heating. *Acta Materialia*, **2006**, 54, 105-110	8.4	220
236	Comparison of the catalytic effects of V, V2O5, VN, and VC on the hydrogen sorption of nanocrystalline Mg. *Journal of Alloys and Compounds*, **2001**, 322, L5-L9	5.7	197
235	Effect of Nb2O5 on MgH2 properties during mechanical milling. *International Journal of Hydrogen Energy*, **2007**, 32, 2400-2407	6.7	179
234	Role of additives in LiBH4□MgH2 reactive hydride composites for sorption kinetics. *Acta Materialia*, **2010**, 58, 3381-3389	8.4	170
233	Cycling and thermal stability of nanostructured MgH2□Cr2O3 composite for hydrogen storage. *Journal of Alloys and Compounds*, **2002**, 347, 319-323	5.7	169

232	Improvement in H-sorption kinetics of MgH2 powders by using Fe nanoparticles generated by reactive FeF3 addition. *Scripta Materialia*, **2005**, 52, 719-724	5.6	146
231	Critical assessment and thermodynamic modeling of the Mg-H system. *International Journal of Hydrogen Energy*, **1999**, 24, 989-1004	6.7	118
230	BALL MILLING OF SYSTEMS WITH POSITIVE HEAT OF MIXING: EFFECT OF TEMPERATURE IN Ag-Cu. *Acta Materialia*, **1997**, 45, 2921-2930	8.4	109
229	Hydrogen sorption improvement of nanocrystalline MgH2 by Nb2O5 nanoparticles. *Scripta Materialia*, **2006**, 54, 1293-1297	5.6	109
228	Using MgO to improve the (de)hydriding properties of magnesium. *Materials Research Bulletin*, **2006**, 41, 1118-1126	5.1	109
227	Chemical and microstructural study of the oxygen passivation behaviour of nanocrystalline Mg and MgH2. *Applied Surface Science*, **2006**, 252, 2334-2345	6.7	104
226	Formation of Ca(BH4)2 from Hydrogenation of CaH2+MgB2 Composite. *Journal of Physical Chemistry C*, **2008**, 112, 2743-2749	3.8	99
225	Influence of Impact Angle and Gas Temperature on Mechanical Properties of Titanium Cold Spray Deposits. *Journal of Thermal Spray Technology*, **2011**, 20, 234-242	2.5	97
224	Formation of supersaturated solid solutions in the immiscible Ni-Ag system by mechanical alloying. *Journal of Applied Physics*, **1996**, 79, 3935	2.5	96
223	Nb2O5 "pathway effect" on hydrogen sorption in Mg. *Journal of Physical Chemistry B*, **2006**, 110, 7845-50	3.4	93
222	Mechanical and thermal decomposition of LiAlH4-LiAlH4 with metal halides. *International Journal of Hydrogen Energy*, **2007**, 32, 1033-1040	6.7	84
221	The formation of metastable Ti-Al solid solutions by mechanical alloying and ball milling. *Journal of Materials Research*, **1993**, 8, 2819-2829	2.5	74
220	Metal hydrides for concentrating solar thermal power energy storage. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	71
219	Thermodynamic analysis of the hydriding process of Mg-Ni alloys. *Journal of Alloys and Compounds*, **1999**, 283, 213-224	5.7	70
218	Nanoconfined 2LiBH4-MgH2 Prepared by Direct Melt Infiltration into Nanoporous Materials. *Journal of Physical Chemistry C*, **2011**, 115, 10903-10910	3.8	69
217	Thermal and mechanically activated decomposition of LiAlH4. *Materials Research Bulletin*, **2008**, 43, 1263-1275	5.1	69
216	H-sorption in MgH2 nanocomposites containing Fe or Ni with fluorine. *Journal of Alloys and Compounds*, **2005**, 404-406, 409-412	5.7	66
215	Competition between stable and metastable phases during mechanical alloying and ball milling. *Physica Status Solidi A*, **1992**, 131, 671-689		66

214	Room temperature mechanical behavior of silicon-doped TiAl alloys with grain sizes in the nano- and submicron-range. *Acta Materialia*, **2001**, 49, 299-311	8.4	63
213	In situX-ray diffraction environments for high-pressure reactions. *Journal of Applied Crystallography* , **2015**, 48, 1234-1241	3.8	60
212	Hydrogen storage systems from waste Mg alloys. *Journal of Power Sources*, **2014**, 270, 554-563	8.9	60
211	Industrial production of light metal hydrides for hydrogen storage. *Scripta Materialia*, **2007**, 56, 847-851	5.6	60
210	Single Impact Bonding of Cold Sprayed Ti-6Al-4V Powders on Different Substrates. *Journal of Thermal Spray Technology*, **2015**, 24, 644-658	2.5	59
209	Thermal stability of nanocrystalline magnesium for hydrogen storage. *Journal of Alloys and Compounds*, **2005**, 404-406, 499-502	5.7	57
208	Influence of thermal properties and temperature of substrate on the quality of cold-sprayed deposits. *Acta Materialia*, **2017**, 127, 287-301	8.4	56
207	Formation of Cold-Sprayed Ceramic Titanium Dioxide Layers on Metal Surfaces. *Journal of Thermal Spray Technology*, **2011**, 20, 292-298	2.5	56
206	The early stages of phase formation during mechanical alloying of TiAl. *Journal of Materials Research*, **1994**, 9, 47-52	2.5	56
205	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
204	Analysis of Thermal History and Residual Stress in Cold-Sprayed Coatings. *Journal of Thermal Spray Technology*, **2014**, 23, 84-90	2.5	53
203	Mechanical behavior of submicron-grained TiAl-based alloys at elevated temperatures. *Intermetallics*, **2001**, 9, 559-569	3.5	53
202	Destabilization of LiBH4 by nanoconfinement in PMMA/BM polymer matrix for reversible hydrogen storage. *International Journal of Hydrogen Energy*, **2014**, 39, 5019-5029	6.7	50
201	Synthesis of nanocomposites and amorphous alloys by mechanical alloying. *Journal of Materials Science*, **2011**, 46, 6301-6315	4.3	49
200	Inverse melting in the Ti-Cr system. *Physical Review B*, **1993**, 47, 8520-8527	3.3	48
199	Nanoconfined 2LiBH4–MgH2–TiCl3 in carbon aerogel scaffold for reversible hydrogen storage. *International Journal of Hydrogen Energy*, **2013**, 38, 3275-3282	6.7	45
198	Waste Mg-Al based alloys for hydrogen storage. *International Journal of Hydrogen Energy*, **2018**, 43, 16738-16748	3.7	44
197	Nanoconfined 2LiBH4–MgH2 for reversible hydrogen storages: Reaction mechanisms, kinetics and thermodynamics. *International Journal of Hydrogen Energy*, **2013**, 38, 1932-1942	6.7	43

196	Microscopic mechanisms of metastable phase formation during ball milling of intermetallic TiAl phases. *Acta Materialia*, **1997**, 45, 3935-3948	8.4	43
195	Comment on "Adiabatic shear instability is not necessary for adhesion in cold spray". *Scripta Materialia*, **2019**, 162, 512-514	5.6	42
194	Tetrahydroborates: Development and Potential as Hydrogen Storage Medium. *Inorganics*, **2017**, 5, 74	2.9	41
193	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
192	Behavior of scaled-up sodium alanate hydrogen storage tanks during sorption. *International Journal of Hydrogen Energy*, **2012**, 37, 2807-2811	6.7	40
191	Cold Spraying of Ti2AlC MAX-Phase Coatings. *Journal of Thermal Spray Technology*, **2013**, 22, 406-412	2.5	40
190	Thermodynamics of the Ni–H system. *Journal of Alloys and Compounds*, **1999**, 283, 151-161	5.7	40
189	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
188	Reversible hydrogen storage in NaF–Al composites. *Journal of Alloys and Compounds*, **2009**, 477, 76-80	5.7	39
187	Synthesis of NaAlH4-based hydrogen storage material using milling under low pressure hydrogen atmosphere. *Journal of Alloys and Compounds*, **2007**, 430, 350-355	5.7	39
186	Optimization of hydrogen storage tubular tanks based on light weight hydrides. *International Journal of Hydrogen Energy*, **2012**, 37, 2825-2834	6.7	37
185	Effect of nanosized oxides on MgH2 (de)hydriding kinetics. *Journal of Alloys and Compounds*, **2007**, 434-435, 738-742	5.7	37
184	Hydrogen Sorption of Nanocrystalline Mg at Reduced Temperatures by Metal-Oxide Catalysts. *Advanced Engineering Materials*, **2001**, 3, 487-490	3.5	37
183	Activation of the reactive hydride composite 2NaBH4 + MgH2. *Scripta Materialia*, **2011**, 64, 1035-1038	5.6	36
182	Solid State Hydrogen Storage in Alanates and Alanate-Based Compounds: A Review. *Metals*, **2018**, 8, 567	2.3	36
181	Impact Conditions for Cold Spraying of Hard Metallic Glasses. *Journal of Thermal Spray Technology*, **2012**, 21, 531-540	2.5	35
180	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
179	Characterization of metal hydrides by in-situ XRD. *International Journal of Hydrogen Energy*, **2014**, 39, 9899-9903	6.7	34

178	Effect of Substrate Temperature on Cold-Gas-Sprayed Coatings on Ceramic Substrates. *Journal of Thermal Spray Technology*, **2013**, 22, 422-432	2.5	34
177	Influence of impurities on the milling process of MgH2. *Journal of Alloys and Compounds*, **2007**, 434-435, 729-733	5.7	34
176	Recent Progress and New Perspectives on Metal Amide and Imide Systems for Solid-State Hydrogen Storage. *Energies*, **2018**, 11, 1027	3.1	33
175	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
174	Hydrogen storage in Mg□LiBH4 composites catalyzed by FeF3. *Journal of Power Sources*, **2014**, 267, 799-803	8.9	33
173	Economic potential of complex hydrides compared to conventional hydrogen storage systems. *International Journal of Hydrogen Energy*, **2012**, 37, 4204-4214	6.7	32
172	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
171	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
170	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
169	Mg-Based Hydrogen Storage Materials with Improved Hydrogen Sorption. *Materials Transactions*, **2001**, 42, 1588-1592	1.3	31
168	Metallization of Thin Al2O3 Layers in Power Electronics Using Cold Gas Spraying. *Journal of Thermal Spray Technology*, **2011**, 20, 299-306	2.5	28
167	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
166	Enhanced volumetric hydrogen density in sodium alanate by compaction. *Journal of Power Sources*, **2011**, 196, 9254-9259	8.9	27
165	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
164	Improved hydrogen sorption of sodium alanate by optimized processing. *Journal of Alloys and Compounds*, **2008**, 465, 310-316	5.7	26
163	Two-body abrasive wear of nano- and microcrystalline TiC□Ni-based thermal spray coatings. *Surface and Coatings Technology*, **2006**, 200, 5037-5047	4.4	26
162	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
161	The effect of ultrafine grained microstructures on the hot-workability of intermetallic/ceramic composites based on □TiAl. *Intermetallics*, **2001**, 9, 45-49	3.5	24

160	2LiBH4MgH2 nanoconfined into carbon aerogel scaffold impregnated with ZrCl4 for reversible hydrogen storage. *Materials Chemistry and Physics*, **2016**, 169, 136-141	4.4	23
159	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
158	Characterization of Hydrogen Storage Materials and Systems with Photons and Neutrons. *Advanced Engineering Materials*, **2011**, 13, 730-736	3.5	23
157	Production of nanocrystalline cermet thermal spray powders for wear resistant coatings by high-energy milling. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2003**, 356, 114-121	5.3	23
156	Metal Injection Molding (MIM) of Magnesium and Its Alloys. *Metals*, **2016**, 6, 118	2.3	23
155	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
154	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
153	Photocatalytic degradation of oxalic and dichloroacetic acid on TiO2 coated metal substrates. *Catalysis Today*, **2013**, 209, 84-90	5.3	22
152	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
151	Influence of spraying parameters on cold gas spraying of iron aluminide intermetallics. *Surface and Coatings Technology*, **2015**, 268, 99-107	4.4	21
150	Magnesium Powder Injection Molding (MIM) of Orthopedic Implants for Biomedical Applications. *Jom*, **2016**, 68, 1191-1197	2.1	21
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	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
147	Magnesium powder injection moulding for biomedical application. *Powder Metallurgy*, **2014**, 57, 331-340	1.9	21
146	Low-temperature superplasticity in ultrafine-grained Ti5Si3TiAl composites. *Scripta Materialia*, **2008**, 59, 455-458	5.6	21
145	Advanced Alumina Composites Reinforced with Titanium-Based Alloys. *Journal of the American Ceramic Society*, **2004**, 84, 1509-1513	3.8	21
144	Determination of plastic constitutive properties of microparticles through single particle compression. *Advanced Powder Technology*, **2015**, 26, 1544-1554	4.6	20
143	Ca(BH4)2MgF2 Reversible Hydrogen Storage: Reaction Mechanisms and Kinetic Properties. *Journal of Physical Chemistry C*, **2011**, 115, 3762-3768	3.8	20

142	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
141	Changing the dehydrogenation pathway of LiBH-MgHvia nanosized lithiated TiO. *Physical Chemistry Chemical Physics*, **2017**, 19, 7455-7460	3.6	19
140	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
139	Microstructures and properties of nanostructured thermal sprayed coatings using high-energy milled cermet powders. *Surface and Coatings Technology*, **2005**, 195, 344-357	4.4	19
138	Transition and Alkali Metal Complex Ternary Amides for Ammonia Synthesis and Decomposition. *Chemistry - A European Journal*, **2017**, 23, 9766-9771	4.8	18
137	MgH2 as dopant for improved activation of commercial Mg ingot. *Journal of Alloys and Compounds*, **2013**, 575, 364-369	5.7	18
136	Catalyzed Na2LiAlH6 for hydrogen storage. *Journal of Alloys and Compounds*, **2005**, 404-406, 771-774	5.7	18
135	Ion beam synthesis of deep buried NiSi2 layers in silicon by 6 MeV Ni implantation. *Nuclear Instruments & Methods in Physics Research B*, **1991**, 59-60, 655-659	1.2	18
134	Mg-based materials for hydrogen storage. *Journal of Magnesium and Alloys*, **2021**, 9, 1837-1837	8.8	18
133	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
132	Thermodynamic properties and absorption□desorption kinetics of Mg87Ni10Al3 alloy synthesised by reactive ball milling under H2 atmosphere. *Journal of Alloys and Compounds*, **2005**, 404-406, 27-30	5.7	17
131	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
130	Structural analysis of calcium reactive hydride composite for solid state hydrogen storage. *Journal of Applied Crystallography*, **2014**, 47, 67-75	3.8	16
129	Basic principles and application potentials of cold gas spraying. *Materialwissenschaft Und Werkstofftechnik*, **2010**, 41, 575-584	0.9	16
128	Influence of particle size on electrochemical and gas-phase hydrogen storage in nanocrystalline Mg. *Journal of Alloys and Compounds*, **2008**, 463, 539-545	5.7	16
127	Processing and Properties of Intermetallic/Ceramic Composites with Interpenetrating Microstructure. *Journal of the American Ceramic Society*, **2005**, 81, 2504-2506	3.8	16
126	Fundamental Material Properties of the 2LiBH4-MgH2 Reactive Hydride Composite for Hydrogen Storage: (II) Kinetic Properties. *Energies*, **2018**, 11, 1170	3.1	16
125	Cold sprayed WO and TiO electrodes for photoelectrochemical water and methanol oxidation in renewable energy applications. *Dalton Transactions*, **2017**, 46, 12811-12823	4.3	15

124	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
123	A search for new Mg- and K-containing alanates for hydrogen storage. *International Journal of Hydrogen Energy*, **2009**, 34, 4582-4586	6.7	15
122	SANS/USANS investigations of nanocrystalline MgH2 for reversible storage of hydrogen. *Physica B: Condensed Matter*, **2006**, 385-386, 630-632	2.8	15
121	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
120	Strain-Induced Phase Transformation of MCrAlY. *Advanced Engineering Materials*, **2015**, 17, 723-731	3.5	14
119	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
118	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
117	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
116	Patterned CoCrMo and Al2 O3 surfaces for reduced free wear debris in artificial joint arthroplasty. *Journal of Biomedical Materials Research - Part A*, **2013**, 101, 3447-56	5.4	14
115	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
114	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
113	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
112	Nanostructure control of materials **2006**,		13
111	New Insight on the Hydrogen Absorption Evolution of the Mg□Fe□H System under Equilibrium Conditions. *Metals*, **2018**, 8, 967	2.3	13
110	Cold gas spraying □A promising technique for photoelectrodes. *Catalysis Today*, **2016**, 260, 140-147	5.3	12
109	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
108	Conversion of magnesium waste into a complex magnesium hydride system: Mg(NH2)2□iH. *Sustainable Energy and Fuels*, **2020**, 4, 1915-1923	5.8	12
107	KNH-KH: a metal amide-hydride solid solution. *Chemical Communications*, **2016**, 52, 11760-11763	5.8	12

106	Cyclic stability and structure of nanoconfined Ti-doped NaAlH 4. *International Journal of Hydrogen Energy*, **2016**, 41, 4159-4167	6.7	12
105	Effect of nitrogen flow rate on microstructures and mechanical properties of metallic coatings by warm spray deposition. *Surface and Coatings Technology*, **2013**, 232, 587-599	4.4	12
104	Ternary Amides Containing Transition Metals for Hydrogen Storage: A Case Study with Alkali Metal Amidozincates. *ChemSusChem*, **2015**, 8, 3777-82	8.3	12
103	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
102	The catalytic effect of Nb2O5 on the electrochemical hydrogenation of nanocrystalline magnesium. *Journal of Alloys and Compounds*, **2006**, 413, 298-301	5.7	12
101	Improved kinetic behaviour of Mg(NH)-2LiH doped with nanostructured K-modified-LiTiO for hydrogen storage. *Scientific Reports*, **2020**, 10, 8	4.9	12
100	Air-stable metal hydride-polymer composites of Mg(NH2)2□iH and TPX□*Materials Today Energy*, **2018**, 10, 98-107	7	12
99	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
98	Efficient Synthesis of Alkali Borohydrides from Mechanochemical Reduction of Borates Using Magnesium□luminum-Based Waste. *Metals*, **2019**, 9, 1061	2.3	11
97	Designing an AB2-Type Alloy (TiZr-CrMnMo) for the Hybrid Hydrogen Storage Concept. *Energies*, **2020**, 13, 2751	3.1	11
96	Optimization of Inconel 718 thick deposits by cold spray processing and annealing. *Surface and Coatings Technology*, **2019**, 378, 124997	4.4	11
95	Differential Scanning Calorimetry (DSC) and Synchrotron X-ray Diffraction Study of Unmilled and Milled LiBH4: A Partial Release of Hydrogen at Moderate Temperatures. *Crystals*, **2012**, 2, 1-21	2.3	11
94	Charge Transfer in c-Si(n)/TiO(ALD) at the Amorphous/Anatase Transition: A Transient Surface Photovoltage Spectroscopy Study. *ACS Applied Materials & Interfaces*, **2020**, 12, 3140-3149	9.5	11
93	Optimization Adhesion in Cold Spraying onto Hard Substrates: A Case Study for Brass Coatings. *Journal of Thermal Spray Technology*, **2019**, 28, 124-134	2.5	11
92	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
91	Influence of milling parameters on the sorption properties of the LiH□MgB2 system doped with TiCl3. *Journal of Alloys and Compounds*, **2015**, 645, S299-S303	5.7	10
90	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
89	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

88	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
87	Cold Spraying of Amorphous Cu50Zr50 Alloys. *Journal of Thermal Spray Technology*, **2014**, 24, 108	2.5	9
86	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
85	Tailoring nanocrystalline materials towards potential applications. *International Journal of Materials Research*, **2003**, 94, 610-614		9
84	Nanoconfinement effects on hydrogen storage properties of MgH2 and LiBH4. *International Journal of Hydrogen Energy*, **2021**, 46, 23723-23723	6.7	9
83	Characterization of BiVO4 powders and cold gas sprayed layers by surface photovoltage techniques. *Catalysis Today*, **2019**, 321-322, 34-40	5.3	9
82	Synthesis, structures and thermal decomposition of ammine MBH complexes (M = Li, Na, Ca). *Dalton Transactions*, **2017**, 46, 7770-7781	4.3	8
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