Thomas Klassen

List of Publications by Year
in descending order

259 papers	13,092 citations	30070 54 h-index	27406 106 g-index
271 all docs	271 docs citations	271 times ranked	5250 citing authors

#	Article	IF	Citations
1	Metal oxides as catalysts for improved hydrogen sorption in nanocrystalline Mg-based materials. Journal of Alloys and Compounds, 2001, 315, 237-242.	5.5	716
2	Cold spraying â€“ A materials perspective. Acta Materialia, 2016, 116, 382-407.	7.9	607
3	Fast hydrogen sorption kinetics of nanocrystalline Mg using Nb2O5 as catalyst. Scripta Materialia, 2003, 49, 213-217.	5.2	531
4	Application of hydrides in hydrogen storage and compression: Achievements, outlook and perspectives. International Journal of Hydrogen Energy, 2019, 44, 7780-7808.	7.1	486
5	From Particle Acceleration to Impact and Bonding in Cold Spraying. Journal of Thermal Spray Technology, 2009, 18, 794.	3.1	460
6	Hydrogen storage in magnesium-based hydrides and hydride composites. Scripta Materialia, 2007, 56, 841-846.	5.2	430
7	Effect of Nb2O5 content on hydrogen reaction kinetics of Mg. Journal of Alloys and Compounds, 2004, 364, 242-246.	5.5	386
8	Hydrogen sorption properties of MgH2â€“LiBH4 composites. Acta Materialia, 2007, 55, 3951-3958.	7.9	350
9	Unexpected kinetic effect of MgB2 in reactive hydride composites containing complex borohydrides. Journal of Alloys and Compounds, 2007, 440, L18-L21.	5.5	305
10	On Parameter Selection in Cold Spraying. Journal of Thermal Spray Technology, 2011, 20, 1161-1176.	3.1	300
11	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.	5.5	291
12	Catalytic Mechanism of Transition-Metal Compounds on Mg Hydrogen Sorption Reaction. Journal of Physical Chemistry B, 2006, 110, 11020-11024.	2.6	240
13	MgH with NbO as additive, for hydrogen storage: Chemical, structural and kinetic behavior with heating. Acta Materialia, 2006, 54, 105-110.	7.9	240
14	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.	5.5	238
15	Effect of Nb2O5 on MgH2 properties during mechanical milling. International Journal of Hydrogen Energy, 2007, 32, 2400-2407.	7.1	202
16	Tailoring Hydrogen Storage Materials Towards Application. Advanced Engineering Materials, 2006, 8, 377-385.	3.5	197
17	Cycling and thermal stability of nanostructured MgH2â€“Cr2O3 composite for hydrogen storage. Journal of Alloys and Compounds, 2002, 347, 319-323.	5.5	193
18	Role of additives in LiBH4â€“MgH2 reactive hydride composites for sorption kinetics. Acta Materialia, 2010, 58, 3381-3389.	7.9	193

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19	Improvement in H-sorption kinetics of MgH powders by using Fe nanoparticles generated by reactive FeF addition. Scripta Materialia, 2005, 52, 719-724.	5.2	174
20	Hydrogen sorption improvement of nanocrystalline MgH2 by Nb2O5 nanoparticles. Scripta Materialia, 2006, 54, 1293-1297.	5.2	129
21	Chemical and microstructural study of the oxygen passivation behaviour of nanocrystalline Mg and MgH2. Applied Surface Science, 2006, 252, 2334-2345.	6.1	128
22	Critical assessment and thermodynamic modeling of the Mgâ€“H system. International Journal of Hydrogen Energy, 1999, 24, 989-1004.	7.1	126
23	Using MgO to improve the (de)hydriding properties of magnesium. Materials Research Bulletin, 2006, 41, 1118-1126.	5.2	125
24	Influence of Impact Angle and Gas Temperature on Mechanical Properties of Titanium Cold Spray Deposits. Journal of Thermal Spray Technology, 2011, 20, 234-242.	3.1	124
25	BALL MILLING OF SYSTEMS WITH POSITIVE HEAT OF MIXING: EFFECT OF TEMPERATURE IN Ag-Cu. Acta Materialia, 1997, 45, 2921-2930.	7.9	122
26	Mg-based materials for hydrogen storage. Journal of Magnesium and Alloys, 2021, 9, 1837-1860.	11.9	117
27	Nb2O5 â€œPathway Effectâ€•on Hydrogen Sorption in Mg. Journal of Physical Chemistry B, 2006, 110, 7845-7850.	2.6	111
28	Formation of supersaturated solid solutions in the immiscible Niâ€“Ag system by mechanical alloying. Journal of Applied Physics, 1996, 79, 3935.	2.5	108
29	Formation of Ca(BH4)2from Hydrogenation of CaH2+MgB2Composite. Journal of Physical Chemistry C, 2008, 112, 2743-2749.	3.1	106
30	Metal hydrides for concentrating solarÂthermal power energy storage. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	95
31	Mechanical and thermal decomposition of LiAlH4LiAlH4 with metal halides. International Journal of Hydrogen Energy, 2007, 32, 1033-1040.	7.1	90
32	The formation of metastable Tiâ€“Al solid solutions by mechanical alloying and ball milling. Journal of Materials Research, 1993, 8, 2819-2829.	2.6	82
33	Influence of thermal properties and temperature of substrate on the quality of cold-sprayed deposits. Acta Materialia, 2017, 127, 287-301.	7.9	79
34	Single Impact Bonding of Cold Sprayed Ti-6Al-4V Powders on Different Substrates. Journal of Thermal Spray Technology, 2015, 24, 644-658.	3.1	78
35	Thermodynamic analysis of the hydriding process of Mgâ€“Ni alloys. Journal of Alloys and Compounds, 1999, 283, 213-224.	5.5	77
36	Nanoconfined 2LiBH₄â€“MgH₂ Prepared by Direct Melt Infiltration into Nanoporous Materials. Journal of Physical Chemistry C, 2011, 115, 10903-10910.	3.1	75

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37	Hydrogen storage systems from waste Mg alloys. Journal of Power Sources, 2014, 270, 554-563.	7.8	75
38	Industrial production of light metal hydrides for hydrogen storage. Scripta Materialia, 2007, 56, 847-851.	5.2	74
39	Thermal and mechanically activated decomposition of LiAlH4. Materials Research Bulletin, 2008, 43, 1263-1275.	5.2	74
40	Competition between stable and metastable phases during mechanical alloying and ball milling. Physica Status Solidi A, 1992, 131, 671-689.	1.7	73
41	H-sorption in MgH2 nanocomposites containing Fe or Ni with fluorine. Journal of Alloys and Compounds, 2005, 404-406, 409-412.	5.5	73
42	Formation of Cold-Sprayed Ceramic Titanium Dioxide Layers on Metal Surfaces. Journal of Thermal Spray Technology, 2011, 20, 292-298.	3.1	71
43	Room temperature mechanical behavior of silicon-doped TiAl alloys with grain sizes in the nano- and submicron-range. Acta Materialia, 2001, 49, 299-311.	7.9	70
44	Synthesis of nanocomposites and amorphous alloys by mechanical alloying. Journal of Materials Science, 2011, 46, 6301-6315.	3.7	69
45	In situ X-ray diffraction environments for high-pressure reactions. Journal of Applied Crystallography, 2015, 48, 1234-1241.	4.5	67
46	Thermal stability of nanocrystalline magnesium for hydrogen storage. Journal of Alloys and Compounds, 2005, 404-406, 499-502.	5.5	66
47	The early stages of phase formation during mechanical alloying of Tiâ€“Al. Journal of Materials Research, 1994, 9, 47-52.	2.6	65
48	Analysis of Thermal History and Residual Stress in Cold-Sprayed Coatings. Journal of Thermal Spray Technology, 2014, 23, 84-90.	3.1	60
49	Solid State Hydrogen Storage in Alanates and Alanate-Based Compounds: A Review. Metals, 2018, 8, 567.	2.3	60
50	Comment on â€˜Adiabatic shear instability is not necessary for adhesion in cold sprayâ€™. Scripta Materialia, 2019, 162, 512-514.	5.2	59
51	Mechanical behavior of submicron-grained Î³-TiAl-based alloys at elevated temperatures. Intermetallics, 2001, 9, 559-569.	3.9	58
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.	3.1	58
53	Destabilization of LiBH4 by nanoconfinement in PMMAâ€“coâ€“BM polymer matrix for reversible hydrogen storage. International Journal of Hydrogen Energy, 2014, 39, 5019-5029.	7.1	58
54	Tetrahydroborates: Development and Potential as Hydrogen Storage Medium. Inorganics, 2017, 5, 74.	2.7	58

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55	Inverse melting in the Ti-Cr system. Physical Review B, 1993, 47, 8520-8527.	3.2	54
56	Waste Mg-Al based alloys for hydrogen storage. International Journal of Hydrogen Energy, 2018, 43, 16738-16748.	7.1	54
57	Nanoconfinement effects on hydrogen storage properties of MgH2 and LiBH4. International Journal of Hydrogen Energy, 2021, 46, 23723-23736.	7.1	50
58	Effect of nanosized oxides on MgH2 (de)hydriding kinetics. Journal of Alloys and Compounds, 2007, 434-435, 738-742.	5.5	49
59	Nanoconfined 2LiBH4â€“MgH2â€“TiCl3 in carbon aerogel scaffold for reversible hydrogen storage. International Journal of Hydrogen Energy, 2013, 38, 3275-3282.	7.1	49
60	Cold Spraying of Ti2AlC MAX-Phase Coatings. Journal of Thermal Spray Technology, 2013, 22, 406-412.	3.1	49
61	Recent Progress and New Perspectives on Metal Amide and Imide Systems for Solid-State Hydrogen Storage. Energies, 2018, 11, 1027.	3.1	49
62	Optimization of hydrogen storage tubular tanks based on light weight hydrides. International Journal of Hydrogen Energy, 2012, 37, 2825-2834.	7.1	47
63	Effect of Substrate Temperature on Cold-Gas-Sprayed Coatings on Ceramic Substrates. Journal of Thermal Spray Technology, 2013, 22, 422-432.	3.1	47
64	Nanoconfined 2LiBH4â€“MgH2 for reversible hydrogen storages: Reaction mechanisms, kinetics and thermodynamics. International Journal of Hydrogen Energy, 2013, 38, 1932-1942.	7.1	46
65	Microscopic mechanisms of metastable phase formation during ball milling of intermetallic TiAl phases. Acta Materialia, 1997, 45, 3935-3948.	7.9	45
66	Reversible hydrogen storage in NaFâ€“Al composites. Journal of Alloys and Compounds, 2009, 477, 76-80.	5.5	44
67	2LiBH₄â€“MgH₂ in a Resorcinolâ€“Furfural Carbon Aerogel Scaffold for Reversible Hydrogen Storage. Journal of Physical Chemistry C, 2012, 116, 1526-1534.	3.1	44
68	Behavior of scaled-up sodium alanate hydrogen storage tanks during sorption. International Journal of Hydrogen Energy, 2012, 37, 2807-2811.	7.1	44
69	Thermodynamics of the Niâ€“H system. Journal of Alloys and Compounds, 1999, 283, 151-161.	5.5	43
70	Hydrogen Sorption of Nanocrystalline Mg at Reduced Temperatures by Metal-Oxide Catalysts. Advanced Engineering Materials, 2001, 3, 487-490.	3.5	43
71	Synthesis of NaAlH4-based hydrogen storage material using milling under low pressure hydrogen atmosphere. Journal of Alloys and Compounds, 2007, 430, 350-355.	5.5	43
72	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.	3.1	43

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73	Characterization of metal hydrides by in-situ XRD. International Journal of Hydrogen Energy, 2014, 39, 9899-9903.	7.1	43
74	Impact Conditions for Cold Spraying of Hard Metallic Glasses. Journal of Thermal Spray Technology, 2012, 21, 531-540.	3.1	40
75	Effective nanoconfinement of 2LiBH 4 â€“MgH 2 via simply MgH 2 premilling for reversible hydrogen storages. International Journal of Hydrogen Energy, 2014, 39, 15614-15626.	7.1	39
76	Influence of impurities on the milling process of MgH2. Journal of Alloys and Compounds, 2007, 434-435, 729-733.	5.5	38
77	Activation of the reactive hydride composite 2NaBH4+MgH2. Scripta Materialia, 2011, 64, 1035-1038.	5.2	37
78	Sorption behavior of the MgH2â€“Mg2FeH6 hydride storage system synthesized by mechanical milling followed by sintering. International Journal of Hydrogen Energy, 2013, 38, 14618-14630.	7.1	37
79	Compaction pressure influence on material properties and sorption behaviour of LiBH4â€“MgH2 composite. International Journal of Hydrogen Energy, 2013, 38, 8357-8366.	7.1	37
80	Mg-Based Hydrogen Storage Materials with Improved Hydrogen Sorption. Materials Transactions, 2001, 42, 1588-1592.	1.2	36
81	Metallization of Thin Al2O3 Layers in Power Electronics Using Cold Gas Spraying. Journal of Thermal Spray Technology, 2011, 20, 299-306.	3.1	36
82	Economic potential of complex hydrides compared to conventional hydrogen storage systems. International Journal of Hydrogen Energy, 2012, 37, 4204-4214.	7.1	36
83	2LiBH4â€“MgH2â€“0.13TiCl4 confined in nanoporous structure of carbon aerogel scaffold for reversible hydrogen storage. Journal of Alloys and Compounds, 2014, 599, 78-86.	5.5	36
84	Hydrogen storage in Mgâ€“LiBH4 composites catalyzed by FeF3. Journal of Power Sources, 2014, 267, 799-811.	7.8	36
85	Ca(BH₄)₂ + MgH₂: Desorption Reaction and Role of Mg on Its Reversibility. Journal of Physical Chemistry C, 2013, 117, 3846-3852.	3.1	35
86	Enhanced volumetric hydrogen density in sodium alanate by compaction. Journal of Power Sources, 2011, 196, 9254-9259.	7.8	32
87	Design, sorption behaviour and energy management in a sodium alanate-based lightweight hydrogen storage tank. International Journal of Hydrogen Energy, 2015, 40, 2984-2988.	7.1	32
88	Two-body abrasive wear of nano- and microcrystalline TiCâ€“Ni-based thermal spray coatings. Surface and Coatings Technology, 2006, 200, 5037-5047.	4.8	31
89	Improved hydrogen sorption of sodium alanate by optimized processing. Journal of Alloys and Compounds, 2008, 465, 310-316.	5.5	31
90	Effect of Fe additive on the hydrogenation-dehydrogenation properties of 2LiHÂ+ÂMgB 2 /2LiBH 4 Â+ÂMgH 2 system. Journal of Power Sources, 2015, 284, 606-616.	7.8	31

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91	Determination of plastic constitutive properties of microparticles through single particle compression. Advanced Powder Technology, 2015, 26, 1544-1554.	4.1	31
92	Development of a modular room-temperature hydride storage system for vehicular applications. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	30
93	2LiBH4â€“MgH2 nanoconfined into carbon aerogel scaffold impregnated with ZrCl4 for reversible hydrogen storage. Materials Chemistry and Physics, 2016, 169, 136-141.	4.0	30
94	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.	7.1	29
95	Metal Injection Molding (MIM) of Magnesium and Its Alloys. Metals, 2016, 6, 118.	2.3	29
96	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.	3.1	29
97	In Situ Formation of TiB₂ Nanoparticles for Enhanced Dehydrogenation/Hydrogenation Reaction Kinetics of LiBH₄â€“MgH₂ as a Reversible Solid-State Hydrogen Storage Composite System. Journal of Physical Chemistry C, 2018, 122, 11671-11681.	3.1	29
98	Ca(BH₄)₂â€“Mg₂NiH₄: on the pathway to a Ca(BH₄)₂ system with a reversible hydrogen cycle. Chemical Communications, 2016, 52, 4836-4839.	4.1	28
99	Transition and Alkali Metal Complex Ternary Amides for Ammonia Synthesis and Decomposition. Chemistry - A European Journal, 2017, 23, 9766-9771.	3.3	28
100	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.	5.6	27
101	Magnesium powder injection moulding for biomedical application. Powder Metallurgy, 2014, 57, 331-340.	1.7	27
102	A novel catalytic route for hydrogenationâ€“dehydrogenation of 2LiH + MgB₂via in situ formed coreâ€“shell Li_xTiO₂nanoparticles. Journal of Materials Chemistry A, 2017, 5, 12922-12933.	10.3	27
103	Low-temperature superplasticity in ultrafine-grained Ti5Si3â€“TiAl composites. Scripta Materialia, 2008, 59, 455-458.	5.2	25
104	Characterization of Hydrogen Storage Materials and Systems with Photons and Neutrons. Advanced Engineering Materials, 2011, 13, 730-736.	3.5	25
105	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.	3.1	25
106	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, 27328-27342.	2.8	25
107	Changing the dehydrogenation pathway of LiBH₄â€“MgH₂via nanosized lithiated TiO₂. Physical Chemistry Chemical Physics, 2017, 19, 7455-7460.	2.8	25
108	Improved kinetic behaviour of Mg(NH2)2-2LiH doped with nanostructured K-modified-LixTiyOz for hydrogen storage. Scientific Reports, 2020, 10, 8.	3.3	25

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109	The effect of ultrafine grained microstructures on the hot-workability of intermetallic/ceramic composites based on Î³-TiAl. Intermetallics, 2001, 9, 45-49.	3.9	24
110	Ca(BH₄)₂â^'MgF₂ Reversible Hydrogen Storage: Reaction Mechanisms and Kinetic Properties. Journal of Physical Chemistry C, 2011, 115, 3762-3768.	3.1	24
111	Photocatalytic degradation of oxalic and dichloroacetic acid on TiO2 coated metal substrates. Catalysis Today, 2013, 209, 84-90.	4.4	24
112	Influence of spraying parameters on cold gas spraying of iron aluminide intermetallics. Surface and Coatings Technology, 2015, 268, 99-107.	4.8	24
113	Magnesium Powder Injection Molding (MIM) of Orthopedic Implants for Biomedical Applications. Jom, 2016, 68, 1191-1197.	1.9	24
114	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	24
115	Advanced Alumina Composites Reinforced with Titaniumâ€Based Alloys. Journal of the American Ceramic Society, 2001, 84, 1509-1513.	3.8	23
116	MgH2 as dopant for improved activation of commercial Mg ingot. Journal of Alloys and Compounds, 2013, 575, 364-369.	5.5	23
117	Microstructures and properties of nanostructured thermal sprayed coatings using high-energy milled cermet powders. Surface and Coatings Technology, 2005, 195, 344-357.	4.8	22
118	Processing and Properties of Intermetallic/Ceramic Composites with Interpenetrating Microstructure. Journal of the American Ceramic Society, 1998, 81, 2504-2506.	3.8	22
119	Basic principles and application potentials of cold gas spraying. Materialwissenschaft Und Werkstofftechnik, 2010, 41, 575-584.	0.9	22
120	Air-stable metal hydride-polymer composites of Mg(NH2)2â€“LiH and TPXâ„¢. Materials Today Energy, 2018, 10, 98-107.	4.7	22
121	Efficient Synthesis of Alkali Borohydrides from Mechanochemical Reduction of Borates Using Magnesiumâ€“Aluminum-Based Waste. Metals, 2019, 9, 1061.	2.3	22
122	Cold sprayed WO₃and TiO₂electrodes for photoelectrochemical water and methanol oxidation in renewable energy applications. Dalton Transactions, 2017, 46, 12811-12823.	3.3	21
123	Fundamental Material Properties of the 2LiBH4-MgH2 Reactive Hydride Composite for Hydrogen Storage: (II) Kinetic Properties. Energies, 2018, 11, 1170.	3.1	21
124	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.	7.1	21
125	Optimization Adhesion in Cold Spraying onto Hard Substrates: A Case Study for Brass Coatings. Journal of Thermal Spray Technology, 2019, 28, 124-134.	3.1	21
126	Catalyzed Na2LiAlH6 for hydrogen storage. Journal of Alloys and Compounds, 2005, 404-406, 771-774.	5.5	20

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127	Thermodynamic properties and absorptionâ€“desorption kinetics of Mg87Ni10Al3 alloy synthesised by reactive ball milling under H2 atmosphere. Journal of Alloys and Compounds, 2005, 404-406, 27-30.	5.5	20
128	SANS/USANS investigations of nanocrystalline MgH2 for reversible storage of hydrogen. Physica B: Condensed Matter, 2006, 385-386, 630-632.	2.7	20
129	A search for new Mg- and K-containing alanates for hydrogen storage. International Journal of Hydrogen Energy, 2009, 34, 4582-4586.	7.1	20
130	Structural analysis of calcium reactive hydride composite for solid state hydrogen storage. Journal of Applied Crystallography, 2014, 47, 67-75.	4.5	20
131	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.	3.1	20
132	Charge Transfer in c-Si(n⁺⁺)/TiO₂(ALD) at the Amorphous/Anatase Transition: A Transient Surface Photovoltage Spectroscopy Study. ACS Applied Materials & Interfaces, 2020, 12, 3140-3149.	8.0	20
133	Designing an AB2-Type Alloy (TiZr-CrMnMo) for the Hybrid Hydrogen Storage Concept. Energies, 2020, 13, 2751.	3.1	20
134	Property prediction and crack growth behavior in cold sprayed Cu deposits. Materials and Design, 2021, 206, 109826.	7.0	20
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.	1.4	19
136	Phase stability and hydrogen desorption in a quinary equimolar mixture of light-metals borohydrides. International Journal of Hydrogen Energy, 2018, 43, 16793-16803.	7.1	19
137	Size Effects of Brittle Particles in Aerosol Depositionâ€”Molecular Dynamics Simulation. Journal of Thermal Spray Technology, 2021, 30, 503-522.	3.1	19
138	Sorption properties and reversibility of Ti(IV) and Nb(V)-fluoride doped-Ca(BH4)2â€“MgH2 system. Journal of Alloys and Compounds, 2015, 622, 989-994.	5.5	18
139	New synthesis route for ternary transition metal amides as well as ultrafast amideâ€“hydride hydrogen storage materials. Chemical Communications, 2016, 52, 5100-5103.	4.1	18
140	The effect of Sr(OH)₂ on the hydrogen storage properties of the Mg(NH₂)₂â€“2LiH system. Physical Chemistry Chemical Physics, 2017, 19, 8457-8464.	2.8	18
141	Optimization of Inconel 718 thick deposits by cold spray processing and annealing. Surface and Coatings Technology, 2019, 378, 124997.	4.8	18
142	Scale-up of milling in a 100ÂL device for processing of TiFeMn alloy for hydrogen storage applications: Procedure and characterization. International Journal of Hydrogen Energy, 2019, 44, 29282-29290.	7.1	18
143	Nanostructure control of materials. , 2006, , .		18
144	Influence of particle size on electrochemical and gas-phase hydrogen storage in nanocrystalline Mg. Journal of Alloys and Compounds, 2008, 463, 539-545.	5.5	17

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145	Effect of the Partial Replacement of CaH₂ with CaF₂ in the Mixed System CaH₂ + MgB₂. Journal of Physical Chemistry C, 2014, 118, 28409-28417.	3.1	17
146	New Insight on the Hydrogen Absorption Evolution of the Mgâ€“Feâ€“H System under Equilibrium Conditions. Metals, 2018, 8, 967.	2.3	17
147	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.	3.1	16
148	Strainâ€Induced Phase Transformation of MCrAlY. Advanced Engineering Materials, 2015, 17, 723-731.	3.5	16
149	Cyclic stability and structure of nanoconfined Ti-doped NaAlH 4. International Journal of Hydrogen Energy, 2016, 41, 4159-4167.	7.1	16
150	Li₂NHâ€LiBH₄: a Complex Hydride with Near Ambient Hydrogen Adsorption and Fast Lithium Ion Conduction. Chemistry - A European Journal, 2018, 24, 1342-1347.	3.3	16
151	Conversion of magnesium waste into a complex magnesium hydride system: Mg(NH₂)₂â€“LiH. Sustainable Energy and Fuels, 2020, 4, 1915-1923.	4.9	16
152	Features of ceramic nanoparticle deformation in aerosol deposition explored by molecular dynamics simulation. Surface and Coatings Technology, 2022, 429, 127886.	4.8	16
153	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.	4.8	15
154	Patterned CoCrMo and Al₂O₃ surfaces for reduced free wear debris in artificial joint arthroplasty. Journal of Biomedical Materials Research - Part A, 2013, 101, 3447-3456.	4.0	15
155	Metal Hydrideâ€Based Hydrogen Storage Tank Coupled with an Urban Concept Fuel Cell Vehicle: Off Board Tests. Advanced Sustainable Systems, 2018, 2, 1800004.	5.3	15
156	Solid-state additive manufacturing of porous Ti-6Al-4V by supersonic impact. Applied Materials Today, 2020, 21, 100865.	4.3	15
157	The catalytic effect of Nb2O5 on the electrochemical hydrogenation of nanocrystalline magnesium. Journal of Alloys and Compounds, 2006, 413, 298-301.	5.5	14
158	Structural study of a new B-rich phase obtained by partial hydrogenation of 2NaHÂ+ÂMgB2. International Journal of Hydrogen Energy, 2013, 38, 10479-10484.	7.1	14
159	Simultaneous desorption behavior of M borohydrides and Mg2FeH6 reactive hydride composites (M =) Tj ETQq1 1 0.784314 rgBT /Ov	3.3	14
160	KNH₂â€“KH: a metal amideâ€“hydride solid solution. Chemical Communications, 2016, 52, 11760-11763.	4.1	14
161	Cold gas spraying â€“ A promising technique for photoelectrodes. Catalysis Today, 2016, 260, 140-147.	4.4	14
162	A new mutually destabilized reactive hydride system: LiBH4â€“Mg2NiH4. Journal of Energy Chemistry, 2019, 34, 240-254.	12.9	14

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163	Enhanced Stability of Li-RHC Embedded in an Adaptive TPXâ„¢ Polymer Scaffold. Materials, 2020, 13, 991.	2.9	14
164	Tailoring powder strengths for enhanced quality of cold sprayed Al6061 deposits. Materials and Design, 2022, 215, 110494.	7.0	14
165	Cold Spraying of Cu-Al-Bronze for Cavitation Protection in Marine Environments. Journal of Thermal Spray Technology, 2015, 24, 126.	3.1	13
166	Ternary Amides Containing Transition Metals for Hydrogen Storage: A Case Study with Alkali Metal Amidozincates. ChemSusChem, 2015, 8, 3777-3782.	6.8	13
167	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.	2.2	12
168	Effect of NaH/MgB2 ratio on the hydrogen absorption kinetics of the system NaHÂ+ÂMgB2. International Journal of Hydrogen Energy, 2014, 39, 5030-5036.	7.1	12
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