Shin-Ichi Orimo

List of Publications by Citations

348 papers	17,087 citations	68 h-index	120 g-index
383 ext. papers	18,457 ext. citations	5.1 avg, IF	6.66 L-index

#	Paper	IF	Citations
348	Complex hydrides for hydrogen storage. *Chemical Reviews*, **2007**, 107, 4111-32	68.1	1769
347	Correlation between thermodynamical stabilities of metal borohydrides and cation electronegativites: First-principles calculations and experiments. *Physical Review B*, **2006**, 74,	3.3	423
346	Recent Progress in Metal Borohydrides for Hydrogen Storage. *Energies*, **2011**, 4, 185-214	3.1	380
345	Dehydriding and rehydriding reactions of. *Journal of Alloys and Compounds*, **2005**, 404-406, 427-430	5.7	364
344	Lithium superionic conduction in lithium borohydride accompanied by structural transition. *Applied Physics Letters*, **2007**, 91, 224103	3.4	327
343	Materials science of Mg-Ni-based new hydrides. *Applied Physics A: Materials Science and Processing*, **2001**, 72, 167-186	2.6	300
342	Halide-stabilized LiBH4, a room-temperature lithium fast-ion conductor. *Journal of the American Chemical Society*, **2009**, 131, 894-5	16.4	290
341	Tetrahydroborates as new hydrogen storage materials. *Scripta Materialia*, **2007**, 56, 823-828	5.6	283
340	Materials for hydrogen-based energy storage â past, recent progress and future outlook. *Journal of Alloys and Compounds*, **2020**, 827, 153548	5.7	264
339	Superconductivity in the metal rich Li-Pd-B ternary boride. *Physical Review Letters*, **2004**, 93, 247004	7.4	248
338	First-principles study on lithium borohydride LiBH4. *Physical Review B*, **2004**, 69,	3.3	247
337	The renaissance of hydrides as energy materials. *Nature Reviews Materials*, **2017**, 2,	73.3	240
336	Experimental studies on intermediate compound of LiBH4. *Applied Physics Letters*, **2006**, 89, 021920	3.4	209
335	Hydrogen in the mechanically prepared nanostructured graphite. *Applied Physics Letters*, **1999**, 75, 3093-3095	3.4	209
334	Notable hydriding properties of a nanostructured composite material of the Mg2Ni-H system synthesized by reactive mechanical grinding. *Acta Materialia*, **1997**, 45, 331-341	8.4	193
333	Destabilization of Li-based complex hydrides. *Journal of Alloys and Compounds*, **2004**, 370, 271-275	5.7	192
332	Sodium superionic conduction in Na2B12H12. *Chemical Communications*, **2014**, 50, 3750-2	5.8	191

331	Dehydriding and rehydriding processes of well-crystallized Mg(BH4)2 accompanying with formation of intermediate compounds. *Acta Materialia*, **2008**, 56, 1342-1347	8.4	185
330	Lithium Fast-Ionic Conduction in Complex Hydrides: Review and Prospects. *Advanced Energy Materials*, **2011**, 1, 161-172	21.8	184
329	Unparalleled Lithium and Sodium Superionic Conduction in Solid Electrolytes with Large Monovalent Cage-like Anions. *Energy and Environmental Science*, **2015**, 8, 3637-3645	35.4	183
328	Exceptional superionic conductivity in disordered sodium decahydro-closo-decaborate. *Advanced Materials*, **2014**, 26, 7622-6	24	179
327	First-principles study on the stability of intermediate compounds of LiBH4. *Physical Review B*, **2006**, 74,	3.3	179
326	Hydrogen desorption property of mechanically prepared nanostructured graphite. *Journal of Applied Physics*, **2001**, 90, 1545-1549	2.5	175
325	A complex hydride lithium superionic conductor for high-energy-density all-solid-state lithium metal batteries. *Nature Communications*, **2019**, 10, 1081	17.4	174
324	Complex Hydrides for Electrochemical Energy Storage. *Advanced Functional Materials*, **2014**, 24, 2267-2279	19.6	156
323	Remarkable hydrogen storage properties in three-layered Pd/Mg/Pd thin films. *Journal of Alloys and Compounds*, **2002**, 330-332, 526-530	5.7	155
322	Complex hydrides with (BH(4))(-) and (NH(2))(-) anions as new lithium fast-ion conductors. *Journal of the American Chemical Society*, **2009**, 131, 16389-91	16.4	153
321	Thermodynamical stability of calcium borohydride Ca(BH4)2. *Physical Review B*, **2006**, 74,	3.3	153
320	Effects of ball milling and additives on dehydriding behaviors of well-crystallized Mg(BH4)2. *Scripta Materialia*, **2007**, 57, 679-682	5.6	152
319	Destabilization of LiBH4 by mixing with LiNH2. *Applied Physics A: Materials Science and Processing*, **2005**, 80, 1409-1412	2.6	152
318	Liquid-Like Ionic Conduction in Solid Lithium and Sodium Monocarba-closo-Decaborates Near or at Room Temperature. *Advanced Energy Materials*, **2016**, 6, 1502237	21.8	148
317	Materials designing of metal borohydrides: Viewpoints from thermodynamical stabilities. *Journal of Alloys and Compounds*, **2007**, 446-447, 315-318	5.7	143
316	Material properties of MBH4 (M=Li,Na,andK). *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2004**, 108, 51-53	3.1	141
315	Reversible dehydrogenation of magnesium borohydride to magnesium triborane in the solid state under moderate conditions. *Chemical Communications*, **2011**, 47, 1330-2	5.8	136
314	Synthesis and dehydriding studies of MgâNâH systems. *Journal of Power Sources*, **2004**, 138, 309-312	8.9	115

313	Stabilizing Superionic-Conducting Structures via Mixed-Anion Solid Solutions of Monocarba-closo-borate Salts. *ACS Energy Letters*, **2016**, 1, 659-664	20.1	113
312	Structural and hydriding properties of the Mg_Ni_H system with nano- and/or amorphous structures. *Acta Materialia*, **1997**, 45, 2271-2278	8.4	112
311	Hydrogen storage properties of Mg[BH4]2. *Journal of Alloys and Compounds*, **2008**, 459, 583-588	5.7	110
310	All-solid-state lithium battery with LiBH4 solid electrolyte. *Journal of Power Sources*, **2013**, 226, 61-64	8.9	109
309	Destabilization and enhanced dehydriding reaction of LiNH2: an electronic structure viewpoint. *Applied Physics A: Materials Science and Processing*, **2004**, 79, 1765-1767	2.6	106
308	Thermodynamical stabilities of metal-borohydrides. *Journal of Alloys and Compounds*, **2007**, 446-447, 296-300	5.7	103
307	Effects of nanometer-scale structure on hydriding properties of Mg?Ni alloys: a review. *Intermetallics*, **1998**, 6, 185-192	3.5	101
306	Formation of an intermediate compound with a B12H12 cluster: experimental and theoretical studies on magnesium borohydride Mg(BH4)2. *Nanotechnology*, **2009**, 20, 204013	3.4	99
305	Correlation between hydrogen storage properties and structural characteristics in mechanically milled magnesium hydride MgH2. *Journal of Alloys and Compounds*, **2004**, 366, 269-273	5.7	99
304	In situ study of hydridingâdehydriding properties in some Pd/Mg thin films with different degree of Mg crystallization. *Journal of Alloys and Compounds*, **1999**, 293-295, 484-489	5.7	99
303	Development of bulk-type all-solid-state lithium-sulfur battery using LiBH4 electrolyte. *Applied Physics Letters*, **2014**, 105, 083901	3.4	97
302	Hydrogen density in nanostructured carbon, metals and complex materials. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2004**, 108, 9-18	3.1	95
301	Reversible hydrogen-storage functions for mixtures of Li3N and Mg3N2. *Applied Physics A: Materials Science and Processing*, **2005**, 80, 1-3	2.6	94
300	Structural and hydriding properties of MgYNi4:: A new intermetallic compound with C15b-type Laves phase structure. *Journal of Alloys and Compounds*, **2000**, 309, L1-L4	5.7	94
299	Hydriding properties of the Mg2Ni-H system synthesized by reactive mechanical grinding. *Journal of Alloys and Compounds*, **1996**, 232, L16-L19	5.7	94
298	Hydrogen storage capability of MgNi2 processed by high pressure torsion. *Scripta Materialia*, **2007**, 57, 751-753	5.6	90
297	Experimental and computational studies on solvent-free rare-earth metal borohydrides R(BH4)3 (R=Y, Dy, and Gd). *Physical Review B*, **2008**, 77,	3.3	89
296	Structure of Ca(BD4)2 beta-phase from combined neutron and synchrotron X-ray powder diffraction data and density functional calculations. *Journal of Physical Chemistry B*, **2008**, 112, 8042-8	3.4	87

295	Revised Crystal Structure Model of Li2NH by Neutron Powder Diffraction. *Journal of the Physical Society of Japan*, **2005**, 74, 483-487	1.5	87
294	Hydrogen in mechanically prepared nanostructured h-BN: a critical comparison with that in nanostructured graphite. *Applied Physics Letters*, **2002**, 80, 318-320	3.4	87
293	Stable Interface Formation between TiS2 and LiBH4 in Bulk-Type All-Solid-State Lithium Batteries. *Chemistry of Materials*, **2015**, 27, 5407-5416	9.6	85
292	Crystal structure and charge density analysis of Li2NH by synchrotron X-ray diffraction. *Journal of Alloys and Compounds*, **2005**, 393, 264-268	5.7	85
291	Stabilization of lithium superionic conduction phase and enhancement of conductivity of LiBH4 by LiCl addition. *Applied Physics Letters*, **2009**, 94, 084103	3.4	83
290	Syntheses and Hydrogen Desorption Properties of Metal-Borohydrides M(BH4)n (M=Mg, Sc, Zr, Ti, and Zn; n=2–4) as Advanced Hydrogen Storage Materials. *Materials Transactions*, **2006**, 47, 1898-1901	1.2	82
289	Li□N based hydrogen storage materials. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2004**, 108, 48-50	3.1	79
288	First-principles study on lithium amide for hydrogen storage. *Physical Review B*, **2005**, 71,	3.3	79
287	Dehydriding reactions of mixed complex hydrides. *Journal of Power Sources*, **2006**, 155, 447-455	8.9	76
286	Magnesium borohydride: A new hydrogen storage material. *Renewable Energy*, **2008**, 33, 193-196	8.1	75
285	Pressure and temperature dependence of the decomposition pathway of LiBH4. *Physical Chemistry Chemical Physics*, **2012**, 14, 6514-9	3.6	73
284	Crystal structure analysis of novel complex hydrides formed by the combination of LiBH4 and LiNH2. *Applied Physics A: Materials Science and Processing*, **2006**, 83, 277-279	2.6	73
283	Experimental and computational studies on structural transitions in the LiBH4â□□I pseudobinary system. *Applied Physics Letters*, **2009**, 94, 141912	3.4	72
282	Intrinsic and mechanically modified thermal stabilities of □ □and □aluminum trihydrides AlH3. *Applied Physics A: Materials Science and Processing*, **2006**, 83, 5-8	2.6	70
281	Stabilizing lithium and sodium fast-ion conduction in solid polyhedral-borate salts at device-relevant temperatures. *Energy Storage Materials*, **2016**, 4, 79-83	19.4	70
280	Development of metal borohydrides for hydrogen storage. *Journal of Physics and Chemistry of Solids*, **2008**, 69, 2292-2296	3.9	68
279	Effect of Hydrogen Absorption on Superconductivity in YBa2Cu3O6.91and GdBa2Cu3O6.89. *Japanese Journal of Applied Physics*, **1988**, 27, L525-L528	1.4	66
278	Fast-ionic conductivity of Li+ in LiBH4. *Physical Review B*, **2011**, 83,	3.3	65

277	Complex and liquid hydrides for energy storage. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	64
276	Advanced neutron shielding material using zirconium borohydride and zirconium hydride. *Journal of Nuclear Materials*, **2009**, 386-388, 119-121	3.3	64
275	Location of deuterium atoms absorbed in nanocrystalline graphite prepared by mechanical alloying. *Journal of Alloys and Compounds*, **2001**, 327, 224-229	5.7	64
274	Structural and dehydriding properties of Ca(BH4)2. *Applied Physics A: Materials Science and Processing*, **2008**, 92, 601-605	2.6	61
273	First-principles study on copper-substituted lithium borohydride, (Li1âCux)BH4. *Journal of Alloys and Compounds*, **2005**, 404-406, 140-143	5.7	61
272	Rotational motion in LiBH4/LiI solid solutions. *Journal of Physical Chemistry A*, **2011**, 115, 5329-34	2.8	59
271	Reversible hydriding and dehydriding reactions of perovskite-type hydride NaMgH3. *Scripta Materialia*, **2005**, 53, 319-322	5.6	59
270	Extending the applicability of the Goldschmidt tolerance factor to arbitrary ionic compounds. *Scientific Reports*, **2016**, 6, 23592	4.9	57
269	Dehydriding reaction of metal hydrides and alkali borohydrides enhanced by microwave irradiation. *Applied Physics Letters*, **2006**, 88, 112104	3.4	57
268	Hydrogen storage properties of LiâMgâNâH systems. *Journal of Alloys and Compounds*, **2005**, 404-406, 396-398	5.7	57
267	Hydrogen absorption and desorption by the Li-Al-N-H system. *Journal of Physical Chemistry B*, **2006**, 110, 9632-6	3.4	57
266	Formation of Intermediate Compound Li2B12H12 during the Dehydrogenation Process of the LiBH4âMgH2 System. *Journal of Physical Chemistry C*, **2011**, 115, 19419-19423	3.8	55
265	Hydrogen storage properties in nano-structured magnesium- and carbon-related materials. *Physica B: Condensed Matter*, **2003**, 328, 77-80	2.8	55
264	Sodium ionic conduction in complex hydrides with [BH4]â and [NH2]â anions. *Applied Physics Letters*, **2012**, 100, 203904	3.4	54
263	Effect of Heat Treatment on the Lithium Ion Conduction of the LiBH4âLiI Solid Solution. *Journal of Physical Chemistry C*, **2013**, 117, 3249-3257	3.8	53
262	Unexpected dehydrogenation behavior of LiBH4/Mg(BH4)2 mixture associated with the in situ formation of dual-cation borohydride. *Journal of Alloys and Compounds*, **2010**, 491, L1-L4	5.7	53
261	Pseudo-binary electrolyte, LiBH4-LiCl, for bulk-type all-solid-state lithium-sulfur battery. *Nanotechnology*, **2015**, 26, 254001	3.4	51
260	Hydriding properties of the MgNi-based systems. *Journal of Alloys and Compounds*, **1999**, 293-295, 437-442	5.7	51

259	Hydrogen interaction with carbon nanostructures: current situation and future prospects. *Journal of Alloys and Compounds*, **2003**, 356-357, 716-719	5.7	49
258	Hydrogen in Nanostructured, Carbon-Related, and Metallic Materials. *MRS Bulletin*, **2002**, 27, 705-711	3.2	49
257	Fast sodium ionic conduction in Na2B10H10-Na2B12H12 pseudo-binary complex hydride and application to a bulk-type all-solid-state battery. *Applied Physics Letters*, **2017**, 110, 103901	3.4	47
256	Site occupancy of interstitial deuterium atoms in face-centred cubic iron. *Nature Communications*, **2014**, 5, 5063	17.4	47
255	Room temperature lithium fast-ion conduction and phase relationship of LiI stabilized LiBH4. *Solid State Ionics*, **2011**, 192, 143-147	3.3	47
254	Dehydriding reaction of Mg(NH2)2â□iH system under hydrogen pressure. *Journal of Alloys and Compounds*, **2007**, 428, 307-311	5.7	46
253	Recent progress in hydrogen-rich materials from the perspective of bonding flexibility of hydrogen. *Scripta Materialia*, **2015**, 109, 1-5	5.6	45
252	Cooperative hydriding properties in a nanostructured Mg2Niâ□ system. *Journal of Alloys and Compounds*, **1997**, 253-254, 80-83	5.7	45
251	Selective reversible hydrogenation of Mg(B3H8)2/MgH2 to Mg(BH4)2: pathway to reversible borane-based hydrogen storage?. *Inorganic Chemistry*, **2015**, 54, 4120-5	5.1	44
250	Fast Lithium-Ion Conduction in Atom-Deficient closo-Type Complex Hydride Solid Electrolytes. *Chemistry of Materials*, **2018**, 30, 386-391	9.6	44
249	Surface changes on AlH3 during the hydrogen desorption. *Applied Physics Letters*, **2010**, 96, 051912	3.4	44
248	Dehydriding reaction of AlH3: in situ microscopic observations combined with thermal and surface analyses. *Nanotechnology*, **2009**, 20, 204004	3.4	44
247	Dehydriding and rehydriding properties of yttrium borohydride Y(BH4)3 prepared by liquid-phase synthesis. *International Journal of Hydrogen Energy*, **2009**, 34, 5732-5736	6.7	44
246	Breaking the passivation--the road to a solvent free borohydride synthesis. *Physical Chemistry Chemical Physics*, **2010**, 12, 10919-22	3.6	43
245	Formation ability of the perovskite-type structure in LixNa1â□MgH3 (x=0, 0.5 and 1.0). *Acta Materialia*, **2005**, 53, 3453-3457	8.4	43
244	Remarkable Hydrogen Storage, Structural and Optical Properties in Multi-layered Pd/Mg Thin Films. *Materials Transactions*, **2002**, 43, 2721-2727	1.3	42
243	Enhancement of superconductivity in Bi2Sr2CaCu2O8+□*Physica C: Superconductivity and Its Applications*, **1989**, 157, 263-266	1.3	42
242	Complex hydrides as room-temperature solid electrolytes for rechargeable batteries. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	41

241	Diffuse and doubly split atom occupation in hexagonal LiBH4. *Applied Physics Letters*, **2009**, 95, 221901	3.4	41
240	Guidelines for Developing Amide-Based Hydrogen Storage Materials. *Materials Transactions*, **2005**, 46, 2093-2097	1.3	39
239	Sodium and magnesium ionic conduction in complex hydrides. *Journal of Alloys and Compounds*, **2013**, 580, S98-S101	5.7	38
238	Optical transmission of magnesium hydride thin film with characteristic nanostructure. *Journal of Alloys and Compounds*, **2002**, 330-332, 352-356	5.7	38
237	Full-cell hydride-based solid-state Li batteries for energy storage. *International Journal of Hydrogen Energy*, **2019**, 44, 7875-7887	6.7	37
236	Hydriding properties of a nano-/amorphous-structured MgâNiâH system. *Journal of Alloys and Compounds*, **1997**, 253-254, 94-97	5.7	37
235	Hydrogen in nanostructured vanadium-hydrogen systems. *Physical Review B*, **2001**, 63,	3.3	37
234	Thermodynamical stability and electronic structure of a perovskite-type hydride, NaMgH3. *Journal of Alloys and Compounds*, **2007**, 446-447, 162-165	5.7	35
233	Magnetization measurements on Li2Pd3B superconductor. *Applied Physics Letters*, **2004**, 85, 4433	3.4	35
232	True boundary for the formation of homoleptic transition-metal hydride complexes. *Angewandte Chemie - International Edition*, **2015**, 54, 5650-3	16.4	34
231	Effect of the surface oxidation of LiBH(4) on the hydrogen desorption mechanism. *Physical Chemistry Chemical Physics*, **2010**, 12, 10950-5	3.6	34
230	Synthesis and Hydrogen Storage Properties of a Single-Phase Magnesium Borohydride Mg(BH4)2. *Materials Transactions*, **2008**, 49, 2224-2228	1.3	34
229	Comparison of Anion Reorientational Dynamics in MCB9H10 and M2B10H10 (M = Li, Na) via Nuclear Magnetic Resonance and Quasielastic Neutron Scattering Studies. *Journal of Physical Chemistry C*, **2017**, 121, 1000-1012	3.8	33
228	Synthesis and Lithium Fast-Ion Conductivity of a New Complex Hydride Li3(NH2)2I with Double-Layered Structure. *Chemistry of Materials*, **2010**, 22, 2702-2704	9.6	33
227	Formation and Hydrogen Storage Properties of Dual-Cation (Li, Ca) Borohydride. *Journal of Physical Chemistry C*, **2010**, 114, 22736-22741	3.8	32
226	Thermal stabilities of amorphous Mg(Ni1âTx) (T?3d transition metals; x=0, 0.2, 0.4 and 0.5). *Journal of Alloys and Compounds*, **1997**, 260, 143-146	5.7	32
225	First-principles study on thermodynamical stability of metal borohydrides: Aluminum borohydride Al(BH4)3. *Journal of Alloys and Compounds*, **2007**, 446-447, 310-314	5.7	31
224	Reactive mechanical grinding of ZrNi under various partial pressures of hydrogen. *Journal of Alloys and Compounds*, **1995**, 217, 287-294	5.7	31

223	Bulk-Type All-Solid-State Lithium Batteries Using Complex Hydrides Containing Cluster-Anions. *Materials Transactions*, **2016**, 57, 1639-1644	1.3	30
222	Lithium ionic conduction in composites of Li(BH4)0.75I0.25 and amorphous 0.75Li2S□0.25P2S5 for battery applications. *Electrochimica Acta*, **2018**, 278, 332-339	6.7	30
221	Surface and bulk reactions in borohydrides and amides. *Energy and Environmental Science*, **2012**, 5, 6823	35.4	30
220	Dehydriding process of □AlH3 observed by transmission electron microscopy and electron energy-loss spectroscopy. *Journal of Applied Physics*, **2009**, 105, 123514	2.5	30
219	Effects of microwave irradiation on the dehydriding reaction of the composites of lithium borohydride and microwave absorber. *Applied Physics Letters*, **2007**, 90, 232907	3.4	30
218	Impact of severe plastic deformation on microstructure and hydrogen storage of titanium-iron-manganese intermetallics. *Scripta Materialia*, **2016**, 124, 108-111	5.6	29
217	Structural and hydriding properties of (Mg1â□Alx)Niâ□(D) with amorphous or CsCl-type cubic structure (x=0â□.5). *Acta Materialia*, **1998**, 46, 4519-4525	8.4	29
216	Synthesis and dehydrogenation of M(AlH4)2 (M=Mg, Ca). *Journal of Alloys and Compounds*, **2007**, 446-447, 237-241	5.7	29
215	Fast lithium-ionic conduction in a new complex hydride-sulphide crystalline phase. *Chemical Communications*, **2016**, 52, 564-6	5.8	28
214	Thermodynamical Stability of Complex Transition Metal Hydrides M2FeH6. *Journal of Physical Chemistry C*, **2013**, 117, 8014-8019	3.8	28
213	Formation Process of [B12H12]2− from [BH4]− during the Dehydrogenation Reaction of Mg(BH4)2. *Materials Transactions*, **2011**, 52, 1443-1446	1.3	28
212	Structural observation of nano-structured and amorphous hydrogen storage materials by neutron diffraction. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2004**, 108, 105-113	3.1	28
211	Hydrogen in mechanically milled amorphous boron. *Journal of Alloys and Compounds*, **2003**, 350, 218-221	5.7	28
210	Cobalt- and copper-substitution effects on thermal stabilities and hydriding properties of amorphous MgNi. *Journal of Alloys and Compounds*, **1998**, 280, 279-283	5.7	27
209	Magnesium Borohydride Ammonia Borane as a Magnesium Ionic Conductor. *ACS Applied Energy Materials*, **2020**, 3, 3174-3179	6.1	26
208	Carbon-Rich Active Materials with Macrocyclic Nanochannels for High-Capacity Negative Electrodes in All-Solid-State Lithium Rechargeable Batteries. *Small*, **2016**, 12, 3381-7	11	26
207	Magnetic Phase Transition of MnBi under High Magnetic Fields and High Temperature. *Materials Transactions*, **2007**, 48, 2414-2418	1.3	26
206	Hydrogen diffusion in metallic and nanostructured materials. *Physica B: Condensed Matter*, **2003**, 328, 81-89	2.8	26

205	NMR studies of hydrogen motion in nanostructured hydrogenâgraphite systems. *Journal of Alloys and Compounds*, **2003**, 356-357, 617-621	5.7	26
204	Formation of novel transition metal hydride complexes with ninefold hydrogen coordination. *Scientific Reports*, **2017**, 7, 44253	4.9	25
203	Interfacial stability between LiBH4-based complex hydride solid electrolytes and Li metal anode for all-solid-state Li batteries. *Journal of Power Sources*, **2019**, 436, 226821	8.9	25
202	Li4FeH6: Iron-containing complex hydride with high gravimetric hydrogen density. *APL Materials*, **2014**, 2, 076103	5.7	25
201	Crystal structure and charge density analysis of Ca(BH4)2. *Journal of Alloys and Compounds*, **2010**, 491, 57-62	5.7	25
200	Syntheses, crystal structures, and thermal analyses of solvent-free Ca(AlD4)2 and CaAlD5. *Journal of Alloys and Compounds*, **2009**, 487, 472-478	5.7	24
199	The local structure of hydrogen storage nanocrystalline graphite by neutron scattering. *Journal of Alloys and Compounds*, **2003**, 356-357, 608-611	5.7	24
198	Raman Scattering and Infrared Absorption Investigation of Hydrogen Configuration State in Mechanically Milled Graphite under H2Gas Atmosphere. *Journal of the Physical Society of Japan*, **2004**, 73, 553-555	1.5	24
197	Comparative study on the reversibility of pure metal borohydrides. *Journal of Alloys and Compounds*, **2013**, 580, S292-S295	5.7	23
196	Neutronics assessment of advanced shield materials using metal hydride and borohydride for fusion reactors. *Fusion Engineering and Design*, **2006**, 81, 1285-1290	1.7	23
195	Effect of mechanical grinding under Ar and H2 atmospheres on structural and hydriding properties in LaNi5. *Journal of Alloys and Compounds*, **2002**, 330-332, 747-751	5.7	23
194	Hydrogen intercalation in some superconducting copper oxides. *Physica C: Superconductivity and Its Applications*, **1989**, 162-164, 65-66	1.3	23
193	Superconductivity of the hydrogen-rich metal hydride Li5MoH11 under high pressure. *Physical Review B*, **2019**, 99,	3.3	22
192	Formation process of perovskite-type hydride LiNiH3: In situ synchrotron radiation X-ray diffraction study. *Applied Physics Letters*, **2013**, 102, 091901	3.4	22
191	Neutron Holography Measurement Using Multi Array Detector. *Japanese Journal of Applied Physics*, **2008**, 47, 2291-2293	1.4	22
190	Magnesium ion dynamics in Mg(BH4)2(1â)X2x (X = Cl or AlH4) from first-principles molecular dynamics simulations. *RSC Advances*, **2014**, 4, 1366-1370	3.7	21
189	Differential Scanning Calorimetry Measurements of Magnesium Borohydride Mg(BH4)2. *Materials Transactions*, **2008**, 49, 2751-2752	1.3	21
188	Investigations of interfacial materials designâhe effect of interface microstructures in ZrCr1.8Cu0.3/Mg on MgH2 formation as a result of hydrogen interdiffusion. *Journal of Alloys and Compounds*, **1995**, 231, 766-772	5.7	21

187	Room temperature operation of all-solid-state battery using a closo-type complex hydride solid electrolyte and a LiCoO2 cathode by interfacial modification. *Journal of Energy Chemistry*, **2020**, 43, 47-51	12	21
186	Formation of an Feâ□ complex anion in YFe2: adjustment of imbalanced charge by using additional Li as an electron donor. *RSC Advances*, **2013**, 3, 1013-1016	3.7	20
185	Synthesis of LiNH2 films by vacuum evaporation. *Journal of Alloys and Compounds*, **2004**, 377, L1-L3	5.7	20
184	Synthesis of fine composite particles for hydrogen storage, starting from Mg-YNi2 mixture. *Journal of Alloys and Compounds*, **1994**, 210, 37-43	5.7	20
183	Investigation of shielding material properties for effective space radiation protection. *Life Sciences in Space Research*, **2020**, 26, 69-76	2.4	19
182	Synthesis and crystal structure analysis of complex hydride Mg(BH4)(NH2). *International Journal of Hydrogen Energy*, **2013**, 38, 6730-6735	6.7	19
181	Enhanced tunability of thermodynamic stability of complex hydrides by the incorporation of Hâ□ anions. *Applied Physics Letters*, **2014**, 104, 203901	3.4	19
180	Anharmonicity in LiBH4â□iI induced by anion exchange and temperature. *Applied Physics Letters*, **2010**, 97, 031916	3.4	19
179	First-principles studies of complex hydride YMn2H6 and its synthesis from metal hydride YMn2H4.5. *Applied Physics Letters*, **2011**, 98, 221908	3.4	19
178	Size distribution of precipitated Ni clusters on the surface of an alkaline-treated LaNi5-based alloy. *Acta Materialia*, **2007**, 55, 481-485	8.4	19
177	Formation region and hydrogen storage abilities of perovskite-type hydrides. *Progress in Solid State Chemistry*, **2007**, 35, 329-337	8	19
176	New composite materials for hydrogen storage using magnesium as a binder. *Journal of the Less Common Metals*, **1991**, 175, 243-257		19
175	Complex hydrides as thermal energy storage materials: characterisation and thermal decomposition of Na2Mg2NiH6. *Journal of Materials Chemistry A*, **2018**, 6, 9099-9108	13	18
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