Liquan Li

List of Publications by Year in Descending Order

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

115	1,956	28	37
papers	citations	h-index	g-index
119	2,448 ext. citations	5.8	5.12
ext. papers		avg, IF	L-index

#	Paper	IF	Citations
115	Catalysis derived from flower-like Ni MOF towards the hydrogen storage performance of magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2022 , 47, 9346-9356	6.7	O
114	Ultra-fine TiO2 nanoparticles supported on three-dimensionally ordered macroporous structure for improving the hydrogen storage performance of MgH2. <i>Applied Surface Science</i> , 2022 , 585, 152561	6.7	3
113	Synergistic effect of TiH2 and air exposure on enhancing hydrogen storage performance of Mg2NiH4. <i>Chemical Engineering Journal</i> , 2022 , 433, 134489	14.7	3
112	Electrochemical Performance of Al-1Zn-0.1In-0.1Sn-0.5Mg-xMn ($x = 0, 0.1, 0.2, 0.3$) Alloys Used as the Anode of an Al-Air Battery. <i>Processes</i> , 2022 , 10, 420	2.9	О
111	Significantly improved hydrogen storage properties of Mg90Al10 catalyzed by TiF3. <i>Journal of Alloys and Compounds</i> , 2022 , 908, 164581	5.7	O
110	Mechanism of improving hydrogenation of Mg by in-situ formation of Al* in hydriding combustion synthesis. <i>Journal of Alloys and Compounds</i> , 2022 , 911, 164969	5.7	0
109	Supra Hydrolytic Catalysis of Ni Fe/rGO for Hydrogen Generation <i>Advanced Science</i> , 2022 , e2201428	13.6	
108	Catalytic effect of micro/nano-Ni on dehydrogenation performance of Mg90Al10 during air exposure. <i>Applied Surface Science</i> , 2022 , 595, 153569	6.7	0
107	Enhanced hydrogen sorption kinetics of MgH2 catalyzed by a novel layered Ni/Al2O3 hybrid. Journal of Alloys and Compounds, 2021 , 162682	5.7	1
106	One-step self-assembly of TiO2/MXene heterostructures for improving the hydrogen storage performance of magnesium hydride. <i>Journal of Alloys and Compounds</i> , 2021 , 895, 162635	5.7	3
105	Controllable hydrogen generation behavior by hydrolysis of MgH2-based materials. <i>Journal of Power Sources</i> , 2021 , 494, 229726	8.9	7
104	Enhancing hydrogen storage properties of MgH2 by core-shell CoNi@C. <i>Journal of Alloys and Compounds</i> , 2021 , 862, 158004	5.7	13
103	Vacancy-Mediated Hydrogen Spillover Improving Hydrogen Storage Properties and Air Stability of Metal Hydrides. <i>Small</i> , 2021 , 17, e2100852	11	4
102	Interface effect in sandwich like Ni/Ti3C2 catalysts on hydrogen storage performance of MgH2. <i>Applied Surface Science</i> , 2021 , 564, 150302	6.7	16
101	Synergistic effect of rGO supported Ni3Fe on hydrogen storage performance of MgH2. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 16622-16633	6.7	30
100	Ultrahigh rate capability and long cycling stability of dual-ion batteries enabled by TiO microspheres with abundant oxygen vacancies. <i>Chemical Communications</i> , 2020 , 56, 8039-8042	5.8	8
99	Cobalt ion intercalated MnO2/C as air cathode catalyst for rechargeable aluminumlir battery. Journal of Alloys and Compounds, 2020 , 824, 153950	5.7	7

(2019-2020)

98	Remarkable synergistic effects of Mg2NiH4 and transition metal carbides (TiC, ZrC, WC) on enhancing the hydrogen storage properties of MgH2. <i>International Journal of Hydrogen Energy</i> , 2020 , 45, 6765-6779	6.7	18	
97	Crystal-facet-dependent catalysis of anatase TiO2 on hydrogen storage of MgH2. <i>Journal of Alloys and Compounds</i> , 2020 , 822, 153553	5.7	34	
96	Nano-inducement of Ni for low-temperature dominant dehydrogenation of MgAl alloy prepared by HCS+MM. <i>Journal of Alloys and Compounds</i> , 2020 , 819, 153020	5.7	7	
95	Catalytic effect of sandwich-like TiC/TiO(A)-C on hydrogen storage performance of MgH. <i>Nanotechnology</i> , 2020 , 31, 115404	3.4	10	
94	Influence of Sn, Cd, and Si addition on the electrochemical performance of Alanth sacrificial anodes. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2020 , 71, 585-592	1.6	4	
93	Effect of Few-Layer TiCT Supported Nano-Ni via Self-Assembly Reduction on Hydrogen Storage Performance of MgH. <i>ACS Applied Materials & mp; Interfaces</i> , 2020 , 12, 47684-47694	9.5	18	
92	Synergistic Catalytic Mechanism between Ni and Carbon Aerogel for Dehydrogenation of Mg-Based Hydrides. <i>Energy & Dehydrogenation of Mg-Based Hydrides</i> . <i>Energy & Dehydrogenation of Mg-Based Hydrides</i> . <i>Energy & Dehydrogenation of Mg-Based Hydrides</i> .	4.1	5	
91	Enhanced hydrogen generation via hydrolysis of MgMg2NiH4 system. <i>Journal of Power Sources</i> , 2020 , 476, 228499	8.9	9	
90	High ionic conductivities of composites of Li4(BH4)3I with two-dimensional MoS2 at room temperature. <i>Journal of Alloys and Compounds</i> , 2020 , 815, 152353	5.7	2	
89	Synergistically tuned hydrogen storage thermodynamics and kinetics of Mg-Al alloys by Cu formed in situ mechanochemically. <i>Journal of Alloys and Compounds</i> , 2019 , 806, 370-377	5.7	5	
88	Purity of MgH2 Improved by the Process of Pre-milling Assisted Hydriding of Mg Powder under a Hydrogen Pressure of 0.5 MPa. <i>Russian Journal of Physical Chemistry A</i> , 2019 , 93, 665-673	0.7	2	
87	Enhanced dehydrogenation properties of LiAlH4Mg2NiH4 nanocomposites via doping Ti-based catalysts. <i>Materials Research Express</i> , 2019 , 6, 075067	1.7	3	
86	Electrochemical hydrogen storage properties of Mg Al Mn Ni quaternary alloys. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 8384-8391	6.7	2	
85	Hydrogenation properties of five-component Mg60Ce10Ni20Cu5X5 (X= Co, Zn) metallic glasses. <i>Intermetallics</i> , 2019 , 108, 94-99	3.5	13	
84	Effects of two-dimension MXene Ti3C2 on hydrogen storage performances of MgH2-LiAlH4 composite. <i>Chemical Physics</i> , 2019 , 522, 178-187	2.3	23	•
83	Effect of rGO supported NiCu derived from layered double hydroxide on hydrogen sorption kinetics of MgH2. <i>Journal of Alloys and Compounds</i> , 2019 , 789, 768-776	5.7	30	
82	Boosting low-temperature de/re-hydrogenation performances of MgH2 with Pd-Ni bimetallic nanoparticles supported by mesoporous carbon. <i>International Journal of Hydrogen Energy</i> , 2019 , 44, 1	07 97 -10	0787	
81	Magnesium Nanoparticles With Pd Decoration for Hydrogen Storage. <i>Frontiers in Chemistry</i> , 2019 , 7, 949	5	6	

80	Excellent catalytic activity of a two-dimensional Nb4C3Tx (MXene) on hydrogen storage of MgH2. <i>Applied Surface Science</i> , 2019 , 493, 431-440	6.7	19
79	Improved Hydrogen Absorption/Desorption Properties of MgH2 by Collatalyzing of YH2 and Co@C. <i>ChemistrySelect</i> , 2019 , 4, 7709-7714	1.8	6
78	An exciting synergistic effect: realizing large-sized MgH2 dehydrogenation at lowered temperatures by locally assembling a heterophase composite. <i>Materials Today Energy</i> , 2019 , 14, 10034.	₅ 7	О
77	State of the art multi-strategy improvement of Mg-based hydrides for hydrogen storage. <i>Journal of Alloys and Compounds</i> , 2019 , 782, 796-823	5.7	70
76	Catalytic effect of in situ formed nano-Mg2Ni and Mg2Cu on the hydrogen storage properties of Mg-Y hydride composites. <i>Journal of Alloys and Compounds</i> , 2019 , 782, 242-250	5.7	28
75	Facile Synthesis of Carbon Supported Nano-Ni Particles with Superior Catalytic Effect on Hydrogen Storage Kinetics of MgH2. <i>ACS Applied Energy Materials</i> , 2018 , 1, 1158-1165	6.1	50
74	Effect of partial substitution of Ti for Al on the phase structure and electrochemical hydrogen storage properties of Mg3AlNi2 alloy. <i>Journal of Alloys and Compounds</i> , 2018 , 746, 421-427	5.7	9
73	Effect of Al* generated in situ in hydriding on the dehydriding properties of Mg-Al alloys prepared by hydriding combustion synthesis and mechanical milling. <i>Journal of Alloys and Compounds</i> , 2018 , 750, 490-498	5.7	10
72	Enhancing hydrogen storage performances of MgH by Ni nano-particles over mesoporous carbon CMK-3. <i>Nanotechnology</i> , 2018 , 29, 265705	3.4	40
71	Improved dehydriding property of polyvinylpyrrolidone coated Mg-Ni hydrogen storage nano-composite prepared by hydriding combustion synthesis and wet mechanical milling. <i>Progress in Natural Science: Materials International</i> , 2018 , 28, 7-14	3.6	8
70	Electrochemical properties of Mg3MnNi2-x% polymethyl methacrylate-multiwalled carbon nanotubes (PMMA-MWCNTs) ($x = 25, 50, 75, 100$). <i>Journal of Materials Science</i> , 2018 , 53, 6033-6041	4.3	3
69	Ternary LiBH4-NaBH4-MgH2 composite as fast ionic conductor. <i>Solid State Ionics</i> , 2018 , 324, 109-113	3.3	4
68	Remarkable Synergistic Catalysis of Ni-Doped Ultrafine TiO on Hydrogen Sorption Kinetics of MgH. <i>ACS Applied Materials & Doped Language Solution Systems</i> 10, 24975-24980	9.5	49
67	Hydrogen storage performances and reaction mechanism of non-stoichiometric compound Li1.3Na1.7AlH6 doped with Ti3C2. <i>Chemical Physics</i> , 2018 , 513, 135-140	2.3	6
66	Superior hydrogenation properties in a Mg65Ce10Ni20Cu5 nanoglass processed by melt-spinning followed by high-pressure torsion. <i>Scripta Materialia</i> , 2018 , 152, 137-140	5.6	19
65	LiBH4-NaX (X=Cl, I) composites with enhanced lithium ionic conductivity. <i>Journal of Alloys and Compounds</i> , 2018 , 764, 307-313	5.7	5
64	Kinetic performance of hydrogen generation enhanced by AlCl3 via hydrolysis of MgH2 prepared by hydriding combustion synthesis. <i>International Journal of Hydrogen Energy</i> , 2018 , 43, 10232-10239	6.7	30
63	Synergistic hydrogen desorption properties of the 4LiAlH4 + Mg2NiH4 composite. <i>Journal of Alloys and Compounds</i> , 2017 , 697, 80-85	5.7	10

(2015-2017)

62	combustion synthesis and mechanical milling (HCS+MM). <i>Journal of Alloys and Compounds</i> , 2017 , 698, 913-920	5.7	5
61	Ionic conductivities of lithium borohydride-lithium nitride composites. <i>Solid State Ionics</i> , 2017 , 304, 150-	-13535	14
60	Metal Hydride Nanoparticles with Ultrahigh Structural Stability and Hydrogen Storage Activity Derived from Microencapsulated Nanoconfinement. <i>Advanced Materials</i> , 2017 , 29, 1700760	24	85
59	Surface modification of Mg3MnNi2 hydrogen storage electrode alloy with polyaniline. <i>International Journal of Hydrogen Energy</i> , 2017 , 42, 14220-14226	6.7	5
58	Controllable fabrication of Ni-based catalysts and their enhancement on desorption properties of MgH2. <i>Journal of Alloys and Compounds</i> , 2017 , 715, 329-336	5.7	26
57	Enhanced hydriding kinetics of Mg-10 at% Al composite by forming Al12Mg17 during hydriding combustion synthesis. <i>Journal of Alloys and Compounds</i> , 2017 , 712, 44-49	5.7	21
56	Electrochemical hydrogen storage properties of Mg 100½ Ni x produced by hydriding combustion synthesis and mechanical milling. <i>Progress in Natural Science: Materials International</i> , 2017 , 27, 144-148	3.6	12
55	The ionic conductivities, stabilities and ionic mobilities of xLiBH4-Li2NH (x 1, 2, 4) composites as fast ion conductor. <i>Journal of Alloys and Compounds</i> , 2017 , 695, 2894-2901	5.7	6
54	Preparations and de/re-hydrogenation properties of LixNa3-xAlH6 (x=0.9¶.3) non-stoichiometric compounds. <i>Journal of Alloys and Compounds</i> , 2017 , 729, 648-654	5.7	1
53	Study on xLiBH4-NaBH4 (xI=11.6, 2.3, and 4) composites with enhanced lithium ionic conductivity. Journal of Alloys and Compounds, 2017 , 729, 936-941	5.7	8
52	The lithium ionic conductivity of 2LiBH4-MgH2 composite as solid electrolyte. <i>Inorganic Chemistry Communication</i> , 2017 , 83, 62-65	3.1	6
51	Controlling nanocrystallization and hydrogen storage property of Mg-based amorphous alloy via a gas-solid reaction. <i>Journal of Alloys and Compounds</i> , 2016 , 685, 272-277	5.7	37
50	The electrochemical hydrogen storage properties of Mg67\(\text{MP}\)dxCo33 (x=1, 3, 5, 7) electrodes with BCC phase. <i>Journal of Alloys and Compounds</i> , 2016 , 662, 396-403	5.7	6
49	Effect of multi-wall carbon nanotubes supported nano-nickel and TiF3 addition on hydrogen storage properties of magnesium hydride. <i>Journal of Alloys and Compounds</i> , 2016 , 669, 8-18	5.7	41
48	Nickel-decorated graphene nanoplates for enhanced H2 sorption properties of magnesium hydride at moderate temperatures. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 2560-2570	13	77
47	The hydrogen storage performance of a 4MgH2LiAlH4TiH2 composite system. <i>Journal of Alloys and Compounds</i> , 2016 , 676, 557-564	5.7	14
46	Improved hydrogen storage properties of Ti-doped Mg95Ni5 powder produced by hydriding combustion synthesis. <i>Journal of Materials Research</i> , 2015 , 30, 967-972	2.5	8
45	Enhanced electrochemical hydrogen storage properties of Mg2NiH4 by coating with nano-nickel. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 13949-13956	6.7	33

44	Alkaline poly(vinyl alcohol)/poly(acrylic acid) polymer electrolyte membrane for Ni-MH battery application. <i>Ionics</i> , 2015 , 21, 141-148	2.7	19
43	Remarkable hydrogen storage properties at low temperature of MgNi composites prepared by hydriding combustion synthesis and mechanical milling. <i>RSC Advances</i> , 2015 , 5, 63202-63208	3.7	14
42	Phase transformation, kinetics and thermodynamics during the combustion synthesis of Mg2Al3 alloy. <i>Journal of Alloys and Compounds</i> , 2015 , 628, 257-262	5.7	9
41	Significantly improved electrochemical hydrogen storage properties of magnesium nickel hydride modified with nano-nickel. <i>Journal of Power Sources</i> , 2015 , 280, 132-140	8.9	39
40	Excellent catalytic effects of multi-walled carbon nanotube supported titania on hydrogen storage of a Mg-Ni alloy. <i>Chemical Communications</i> , 2015 , 51, 2368-71	5.8	31
39	Highly efficient bimetal synergetic catalysis by a multi-wall carbon nanotube supported palladium and nickel catalyst for the hydrogen storage of magnesium hydride. <i>Chemical Communications</i> , 2014 , 50, 6641-4	5.8	32
38	Effect of multi-wall carbon nanotubes supported palladium addition on hydrogen storage properties of magnesium hydride. <i>International Journal of Hydrogen Energy</i> , 2014 , 39, 10184-10194	6.7	41
37	Catalytic Effect of Multi-Wall Carbon Nanotubes Supported Nickel on Hydrogen Storage Properties of Mg99Ni Prepared by Hydriding Combustion Synthesis. <i>Materials Transactions</i> , 2014 , 55, 1149-1155	1.3	5
36	Effect of pH on the structural characteristics of in situ synthesized Ni-incorporated SBA-15 magnetic composites. <i>Research on Chemical Intermediates</i> , 2014 , 40, 385-397	2.8	7
35	Synergistic hydrogen desorption of HCS MgH2I-ILiAlH4 composite. <i>Energy</i> , 2013 , 55, 933-938	7.9	20
34	Combustion synthesis of Mg-based hydrogen storage alloy Mg17Al12. <i>Advanced Powder Technology</i> , 2013 , 24, 643-646	4.6	9
33	Direct synthesis of Nd3+ doped mesoporous TiO2 and investigation of its photocatalytic performance. <i>Journal of Sol-Gel Science and Technology</i> , 2012 , 64, 564-570	2.3	5
32	Efficient catalysis by MgCl2 in hydrogen generation via hydrolysis of Mg-based hydride prepared by hydriding combustion synthesis. <i>Chemical Communications</i> , 2012 , 48, 5509-11	5.8	40
31	Hydrogen storage properties of MgNiHe composites prepared by hydriding combustion synthesis and mechanical milling. <i>Journal of Alloys and Compounds</i> , 2012 , 520, 207-212	5.7	16
30	Effect of SiC on hydrogen storage properties of Mg95Ni5 prepared by hydriding combustion synthesis and mechanical milling. <i>Journal of Alloys and Compounds</i> , 2012 , 539, 215-220	5.7	7
29	Superior hydrogen storage properties of Mg95Ni5🖟 🗓 0 lwt.% nanosized Zr0.7Ti0.3Mn2 lb llwt.% MWCNT prepared by hydriding combustion synthesis followed by mechanical milling (HCS lb ll	6.7	16
28	Electrochemical hydrogen storage properties of Mg2MAlxNi (x\pm \overline{0}, 0.3, 0.5, 0.7) prepared by hydriding combustion synthesis and mechanical milling. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 18140-18147	6.7	16
27	Structural and electrochemical hydrogen storage properties of Mg2Ni-based alloys. <i>Journal of Alloys and Compounds</i> , 2011 , 509, 5309-5314	5.7	34

(2006-2010)

26	Hydrogen storage properties of the Zintl phase alloy SrAl2 doped with TiF3. <i>Journal of Alloys and Compounds</i> , 2010 , 492, 277-281	5.7	5	
25	Hydrogen storage properties of MgNiC system hydrogen storage materials prepared by hydriding combustion synthesis and mechanical milling. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 6350-6355	6.7	28	
24	Electrochemical properties of Mg-based hydrogen storage materials modified with carbonaceous materials prepared by hydriding combustion synthesis and subsequent mechanical milling (HCSI+IMM). <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 9653-9660	6.7	8	
23	Hydrogen storage properties of MgNitu prepared by hydriding combustion synthesis and mechanical milling (HCS+MM). <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 2654-2660	6.7	43	
22	Catalytic mechanism of Nb2O5 and NbF5 on the dehydriding property of Mg95Ni5 prepared by hydriding combustion synthesis and mechanical milling. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 7707-7713	6.7	19	
21	Structural and hydriding/dehydriding properties of Mg[laNi-based composites. <i>Journal of Alloys and Compounds</i> , 2009 , 477, 440-444	5.7	14	
20	Effect of Si substitution for Al on the structural and hydrogenation properties of the Zintl phase alloy SrAl2. <i>Journal of Alloys and Compounds</i> , 2009 , 485, 439-443	5.7	5	
19	Structures and hydrogen storage properties of Mg95Ni5 composite prepared by hydriding combustion synthesis and mechanical milling. <i>Materials Chemistry and Physics</i> , 2008 , 112, 218-222	4.4	17	
18	Structure and hydrogenation properties of nanocrystalline Mg2Ni prepared by hydriding combustion synthesis and mechanical milling. <i>Journal of Alloys and Compounds</i> , 2008 , 455, 197-202	5.7	25	
17	Hydriding combustion synthesis of MgCaNi5 composites. <i>Journal of Alloys and Compounds</i> , 2008 , 458, 394-397	5.7	10	
16	Electrochemical properties of Mg-based hydrogen storage alloys prepared by hydriding combustion synthesis and subsequent mechanical milling (HCS+MM). <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 2965-2969	6.7	16	
15	Effect of La/Ni ratio on hydrogen storage properties of MgNilla system prepared by hydriding combustion synthesis followed by mechanical milling. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 2970-2974	6.7	45	
14	Structural and hydrogenation properties of SrAl2Nix alloys. <i>International Journal of Hydrogen Energy</i> , 2008 , 33, 7498-7504	6.7	4	
13	Mechanism of the high activity of Mg2NiH4 produced by hydriding combustion synthesis based on the analysis of phase composition, particle characteristic and grain size. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 2455-2460	6.7	30	
12	Hydriding characteristics of Mg2Ni prepared by mechanical milling of the product of hydriding combustion synthesis. <i>International Journal of Hydrogen Energy</i> , 2007 , 32, 2450-2454	6.7	21	
11	Effect of surface oxidation on the hydriding and dehydriding of Mg2Ni alloy produced by hydriding combustion synthesis. <i>Journal of Materials Science</i> , 2007 , 42, 9725-9729	4.3	2	
10	Hydrogen storage properties of Mg100Nix (x=5, 11.3, 20, 25) composites prepared by hydriding combustion synthesis followed by mechanical milling (HCS+MM). <i>Intermetallics</i> , 2007 , 15, 1582-1588	3.5	28	
9	Characterization of hydrogen storage properties of Mg-30wt.% Ti1.0V1.1Mn0.9 composite. <i>Journal of Alloys and Compounds</i> , 2006 , 424, 382-387	5.7	18	

8	Hydriding and dehydriding properties of nanostructured Mg2Ni alloy prepared by the process of hydriding combustion synthesis and subsequent mechanical grinding. <i>Journal of Alloys and Compounds</i> , 2006 , 425, 235-238	5.7	22
7	Pressure-Composition-Temperature Properties of Hydriding Combustion-Synthesized Mg2NiH4. <i>Materials Transactions</i> , 2002 , 43, 1100-1104	1.3	16
6	Effect of synthesis temperature on the purity of product in hydriding combustion synthesis of Mg2NiH4. <i>Journal of Alloys and Compounds</i> , 2002 , 345, 189-195	5.7	28
5	Hydrogen storage alloy of Mg2NiH4 hydride produced by hydriding combustion synthesis from powder of mixture metal. <i>Journal of Alloys and Compounds</i> , 2000 , 308, 98-103	5.7	29
4	Effect of hydrogen pressure on the combustion synthesis of Mg2NiH4. <i>Intermetallics</i> , 1999 , 7, 201-205	3.5	19
3	Reaction mechanism of hydriding combustion synthesis of Mg2NiH4. <i>Intermetallics</i> , 1999 , 7, 671-677	3.5	45
2	Hydriding and dehydriding behavior of the product in hydriding combustion synthesis of Mg2NiH4. <i>Journal of Alloys and Compounds</i> , 1999 , 287, 98-103	5.7	18
1	Air-stable magnesium nickel hydride with autocatalytic and self-protective effect for reversible hydrogen storage. <i>Nano Research</i> ,1	10	0