Liquan Li

List of Publications by Citations

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

#	Paper	IF	Citations
115	Metal Hydride Nanoparticles with Ultrahigh Structural Stability and Hydrogen Storage Activity Derived from Microencapsulated Nanoconfinement. *Advanced Materials*, **2017**, 29, 1700760	24	85
114	Nickel-decorated graphene nanoplates for enhanced H2 sorption properties of magnesium hydride at moderate temperatures. *Journal of Materials Chemistry A*, **2016**, 4, 2560-2570	13	77
113	State of the art multi-strategy improvement of Mg-based hydrides for hydrogen storage. *Journal of Alloys and Compounds*, **2019**, 782, 796-823	5.7	70
112	Facile Synthesis of Carbon Supported Nano-Ni Particles with Superior Catalytic Effect on Hydrogen Storage Kinetics of MgH2. *ACS Applied Energy Materials*, **2018**, 1, 1158-1165	6.1	50
111	Remarkable Synergistic Catalysis of Ni-Doped Ultrafine TiO on Hydrogen Sorption Kinetics of MgH. *ACS Applied Materials & Interfaces*, **2018**, 10, 24975-24980	9.5	49
110	Effect of La/Ni ratio on hydrogen storage properties of MgNiLa system prepared by hydriding combustion synthesis followed by mechanical milling. *International Journal of Hydrogen Energy*, **2008**, 33, 2970-2974	6.7	45
109	Reaction mechanism of hydriding combustion synthesis of Mg2NiH4. *Intermetallics*, **1999**, 7, 671-677	3.5	45
108	Hydrogen storage properties of MgNiCu prepared by hydriding combustion synthesis and mechanical milling (HCS+MM). *International Journal of Hydrogen Energy*, **2009**, 34, 2654-2660	6.7	43
107	Effect of multi-wall carbon nanotubes supported nano-nickel and TiF3 addition on hydrogen storage properties of magnesium hydride. *Journal of Alloys and Compounds*, **2016**, 669, 8-18	5.7	41
106	Effect of multi-wall carbon nanotubes supported palladium addition on hydrogen storage properties of magnesium hydride. *International Journal of Hydrogen Energy*, **2014**, 39, 10184-10194	6.7	41
105	Enhancing hydrogen storage performances of MgH by Ni nano-particles over mesoporous carbon CMK-3. *Nanotechnology*, **2018**, 29, 265705	3.4	40
104	Efficient catalysis by MgCl2 in hydrogen generation via hydrolysis of Mg-based hydride prepared by hydriding combustion synthesis. *Chemical Communications*, **2012**, 48, 5509-11	5.8	40
103	Significantly improved electrochemical hydrogen storage properties of magnesium nickel hydride modified with nano-nickel. *Journal of Power Sources*, **2015**, 280, 132-140	8.9	39
102	Controlling nanocrystallization and hydrogen storage property of Mg-based amorphous alloy via a gas-solid reaction. *Journal of Alloys and Compounds*, **2016**, 685, 272-277	5.7	37
101	Structural and electrochemical hydrogen storage properties of Mg2Ni-based alloys. *Journal of Alloys and Compounds*, **2011**, 509, 5309-5314	5.7	34
100	Crystal-facet-dependent catalysis of anatase TiO2 on hydrogen storage of MgH2. *Journal of Alloys and Compounds*, **2020**, 822, 153553	5.7	34
99	Enhanced electrochemical hydrogen storage properties of Mg2NiH4 by coating with nano-nickel. *International Journal of Hydrogen Energy*, **2015**, 40, 13949-13956	6.7	33

98	Highly efficient bimetal synergetic catalysis by a multi-wall carbon nanotube supported palladium and nickel catalyst for the hydrogen storage of magnesium hydride. *Chemical Communications*, **2014**, 50, 6641-4	5.8	32
97	Excellent catalytic effects of multi-walled carbon nanotube supported titania on hydrogen storage of a Mg-Ni alloy. *Chemical Communications*, **2015**, 51, 2368-71	5.8	31
96	Effect of rGO supported NiCu derived from layered double hydroxide on hydrogen sorption kinetics of MgH2. *Journal of Alloys and Compounds*, **2019**, 789, 768-776	5.7	30
95	Synergistic effect of rGO supported Ni3Fe on hydrogen storage performance of MgH2. *International Journal of Hydrogen Energy*, **2020**, 45, 16622-16633	6.7	30
94	Mechanism of the high activity of Mg2NiH4 produced by hydriding combustion synthesis based on the analysis of phase composition, particle characteristic and grain size. *International Journal of Hydrogen Energy*, **2007**, 32, 2455-2460	6.7	30
93	Kinetic performance of hydrogen generation enhanced by AlCl3 via hydrolysis of MgH2 prepared by hydriding combustion synthesis. *International Journal of Hydrogen Energy*, **2018**, 43, 10232-10239	6.7	30
92	Hydrogen storage alloy of Mg2NiH4 hydride produced by hydriding combustion synthesis from powder of mixture metal. *Journal of Alloys and Compounds*, **2000**, 308, 98-103	5.7	29
91	Hydrogen storage properties of MgNiC system hydrogen storage materials prepared by hydriding combustion synthesis and mechanical milling. *International Journal of Hydrogen Energy*, **2010**, 35, 6350-6355	6.7	28
90	Hydrogen storage properties of Mg100−xNix (x=5, 11.3, 20, 25) composites prepared by hydriding combustion synthesis followed by mechanical milling (HCS+MM). *Intermetallics*, **2007**, 15, 1582-1588	3.5	28
89	Effect of synthesis temperature on the purity of product in hydriding combustion synthesis of Mg2NiH4. *Journal of Alloys and Compounds*, **2002**, 345, 189-195	5.7	28
88	Catalytic effect of in situ formed nano-Mg2Ni and Mg2Cu on the hydrogen storage properties of Mg-Y hydride composites. *Journal of Alloys and Compounds*, **2019**, 782, 242-250	5.7	28
87	Controllable fabrication of Ni-based catalysts and their enhancement on desorption properties of MgH2. *Journal of Alloys and Compounds*, **2017**, 715, 329-336	5.7	26
86	Structure and hydrogenation properties of nanocrystalline Mg2Ni prepared by hydriding combustion synthesis and mechanical milling. *Journal of Alloys and Compounds*, **2008**, 455, 197-202	5.7	25
85	Effects of two-dimension MXene Ti3C2 on hydrogen storage performances of MgH2-LiAlH4 composite. *Chemical Physics*, **2019**, 522, 178-187	2.3	23
84	Boosting low-temperature de/re-hydrogenation performances of MgH2 with Pd-Ni bimetallic nanoparticles supported by mesoporous carbon. *International Journal of Hydrogen Energy*, **2019**, 44, 10777-10787	6.7	22
83	Hydriding and dehydriding properties of nanostructured Mg2Ni alloy prepared by the process of hydriding combustion synthesis and subsequent mechanical grinding. *Journal of Alloys and Compounds*, **2006**, 425, 235-238	5.7	22
82	Enhanced hydriding kinetics of Mg-10 at% Al composite by forming Al12Mg17 during hydriding combustion synthesis. *Journal of Alloys and Compounds*, **2017**, 712, 44-49	5.7	21
81	Hydriding characteristics of Mg2Ni prepared by mechanical milling of the product of hydriding combustion synthesis. *International Journal of Hydrogen Energy*, **2007**, 32, 2450-2454	6.7	21

80	Synergistic hydrogen desorption of HCS MgH2+LiAlH4 composite. *Energy*, **2013**, 55, 933-938	7.9	20
79	Alkaline poly(vinyl alcohol)/poly(acrylic acid) polymer electrolyte membrane for Ni-MH battery application. *Ionics*, **2015**, 21, 141-148	2.7	19
78	Superior hydrogenation properties in a Mg65Ce10Ni20Cu5 nanoglass processed by melt-spinning followed by high-pressure torsion. *Scripta Materialia*, **2018**, 152, 137-140	5.6	19
77	Excellent catalytic activity of a two-dimensional Nb4C3Tx (MXene) on hydrogen storage of MgH2. *Applied Surface Science*, **2019**, 493, 431-440	6.7	19
76	Catalytic mechanism of Nb2O5 and NbF5 on the dehydriding property of Mg95Ni5 prepared by hydriding combustion synthesis and mechanical milling. *International Journal of Hydrogen Energy*, **2009**, 34, 7707-7713	6.7	19
75	Effect of hydrogen pressure on the combustion synthesis of Mg2NiH4. *Intermetallics*, **1999**, 7, 201-205	3.5	19
74	Characterization of hydrogen storage properties of Mg-30wt.% Ti1.0V1.1Mn0.9 composite. *Journal of Alloys and Compounds*, **2006**, 424, 382-387	5.7	18
73	Hydriding and dehydriding behavior of the product in hydriding combustion synthesis of Mg2NiH4. *Journal of Alloys and Compounds*, **1999**, 287, 98-103	5.7	18
72	Remarkable synergistic effects of Mg2NiH4 and transition metal carbides (TiC, ZrC, WC) on enhancing the hydrogen storage properties of MgH2. *International Journal of Hydrogen Energy*, **2020**, 45, 6765-6779	6.7	18
71	Effect of Few-Layer TiCT Supported Nano-Ni via Self-Assembly Reduction on Hydrogen Storage Performance of MgH. *ACS Applied Materials & Interfaces*, **2020**, 12, 47684-47694	9.5	18
70	Structures and hydrogen storage properties of Mg95Ni5 composite prepared by hydriding combustion synthesis and mechanical milling. *Materials Chemistry and Physics*, **2008**, 112, 218-222	4.4	17
69	Hydrogen storage properties of MgNiFe composites prepared by hydriding combustion synthesis and mechanical milling. *Journal of Alloys and Compounds*, **2012**, 520, 207-212	5.7	16
68	Superior hydrogen storage properties of Mg95Ni5+10wt.% nanosized Zr0.7Ti0.3Mn2+3wt.% MWCNT prepared by hydriding combustion synthesis followed by mechanical milling (HCS+MM). *International Journal of Hydrogen Energy*, **2012**, 37, 17146-17152	6.7	16
67	Electrochemical hydrogen storage properties of Mg2AlxNi (x=0, 0.3, 0.5, 0.7) prepared by hydriding combustion synthesis and mechanical milling. *International Journal of Hydrogen Energy*, **2012**, 37, 18140-18147	6.7	16
66	Electrochemical properties of Mg-based hydrogen storage alloys prepared by hydriding combustion synthesis and subsequent mechanical milling (HCS+MM). *International Journal of Hydrogen Energy*, **2008**, 33, 2965-2969	6.7	16
65	Pressure-Composition-Temperature Properties of Hydriding Combustion-Synthesized Mg2NiH4. *Materials Transactions*, **2002**, 43, 1100-1104	1.3	16
64	Interface effect in sandwich like Ni/Ti3C2 catalysts on hydrogen storage performance of MgH2. *Applied Surface Science*, **2021**, 564, 150302	6.7	16
63	Ionic conductivities of lithium borohydride-lithium nitride composites. *Solid State Ionics*, **2017**, 304, 150-155	3.3	14

62	Remarkable hydrogen storage properties at low temperature of MgNi composites prepared by hydriding combustion synthesis and mechanical milling. *RSC Advances*, **2015**, 5, 63202-63208	3.7	14
61	Structural and hydriding/dehydriding properties of MgLaNi-based composites. *Journal of Alloys and Compounds*, **2009**, 477, 440-444	5.7	14
60	The hydrogen storage performance of a 4MgH2LiAlH4TiH2 composite system. *Journal of Alloys and Compounds*, **2016**, 676, 557-564	5.7	14
59	Hydrogenation properties of five-component Mg60Ce10Ni20Cu5X5 (X= Co, Zn) metallic glasses. *Intermetallics*, **2019**, 108, 94-99	3.5	13
58	Enhancing hydrogen storage properties of MgH2 by core-shell CoNi@C. *Journal of Alloys and Compounds*, **2021**, 862, 158004	5.7	13
57	Electrochemical hydrogen storage properties of Mg 100 Ni x produced by hydriding combustion synthesis and mechanical milling. *Progress in Natural Science: Materials International*, **2017**, 27, 144-148	3.6	12
56	Synergistic hydrogen desorption properties of the 4LiAlH4 + Mg2NiH4 composite. *Journal of Alloys and Compounds*, **2017**, 697, 80-85	5.7	10
55	Effect of Al* generated in situ in hydriding on the dehydriding properties of Mg-Al alloys prepared by hydriding combustion synthesis and mechanical milling. *Journal of Alloys and Compounds*, **2018**, 750, 490-498	5.7	10
54	Hydriding combustion synthesis of MgLaNi5 composites. *Journal of Alloys and Compounds*, **2008**, 458, 394-397	5.7	10
53	Catalytic effect of sandwich-like TiC/TiO(A)-C on hydrogen storage performance of MgH. *Nanotechnology*, **2020**, 31, 115404	3.4	10
52	Effect of partial substitution of Ti for Al on the phase structure and electrochemical hydrogen storage properties of Mg3AlNi2 alloy. *Journal of Alloys and Compounds*, **2018**, 746, 421-427	5.7	9
51	Phase transformation, kinetics and thermodynamics during the combustion synthesis of Mg2Al3 alloy. *Journal of Alloys and Compounds*, **2015**, 628, 257-262	5.7	9
50	Combustion synthesis of Mg-based hydrogen storage alloy Mg17Al12. *Advanced Powder Technology* , **2013**, 24, 643-646	4.6	9
49	Enhanced hydrogen generation via hydrolysis of MgMg2NiH4 system. *Journal of Power Sources*, **2020**, 476, 228499	8.9	9
48	Improved hydrogen storage properties of Ti-doped Mg95Ni5 powder produced by hydriding combustion synthesis. *Journal of Materials Research*, **2015**, 30, 967-972	2.5	8
47	Ultrahigh rate capability and long cycling stability of dual-ion batteries enabled by TiO microspheres with abundant oxygen vacancies. *Chemical Communications*, **2020**, 56, 8039-8042	5.8	8
46	Improved dehydriding property of polyvinylpyrrolidone coated Mg-Ni hydrogen storage nano-composite prepared by hydriding combustion synthesis and wet mechanical milling. *Progress in Natural Science: Materials International*, **2018**, 28, 7-14	3.6	8
45	Study on xLiBH4-NaBH4 (x 1.6, 2.3, and 4) composites with enhanced lithium ionic conductivity. *Journal of Alloys and Compounds*, **2017**, 729, 936-941	5.7	8

44	Electrochemical properties of Mg-based hydrogen storage materials modified with carbonaceous materials prepared by hydriding combustion synthesis and subsequent mechanical milling (HCS□+□MM). *International Journal of Hydrogen Energy*, **2010**, 35, 9653-9660	6.7	8
43	Cobalt ion intercalated MnO2/C as air cathode catalyst for rechargeable aluminum□air battery. *Journal of Alloys and Compounds*, **2020**, 824, 153950	5.7	7
42	Effect of pH on the structural characteristics of in situ synthesized Ni-incorporated SBA-15 magnetic composites. *Research on Chemical Intermediates*, **2014**, 40, 385-397	2.8	7
41	Effect of SiC on hydrogen storage properties of Mg95Ni5 prepared by hydriding combustion synthesis and mechanical milling. *Journal of Alloys and Compounds*, **2012**, 539, 215-220	5.7	7
40	Nano-inducement of Ni for low-temperature dominant dehydrogenation of Mg□Al alloy prepared by HCS+MM. *Journal of Alloys and Compounds*, **2020**, 819, 153020	5.7	7
39	Controllable hydrogen generation behavior by hydrolysis of MgH2-based materials. *Journal of Power Sources*, **2021**, 494, 229726	8.9	7
38	The ionic conductivities, stabilities and ionic mobilities of xLiBH4-Li2NH (x□=□1, 2, 4) composites as fast ion conductor. *Journal of Alloys and Compounds*, **2017**, 695, 2894-2901	5.7	6
37	Magnesium Nanoparticles With Pd Decoration for Hydrogen Storage. *Frontiers in Chemistry*, **2019**, 7, 949	5	6
36	The electrochemical hydrogen storage properties of Mg67□PdxCo33 (x=1, 3, 5, 7) electrodes with BCC phase. *Journal of Alloys and Compounds*, **2016**, 662, 396-403	5.7	6
35	Hydrogen storage performances and reaction mechanism of non-stoichiometric compound Li1.3Na1.7AlH6 doped with Ti3C2. *Chemical Physics*, **2018**, 513, 135-140	2.3	6
34	Improved Hydrogen Absorption/Desorption Properties of MgH2 by Co□Catalyzing of YH2 and Co@C. *ChemistrySelect*, **2019**, 4, 7709-7714	1.8	6
33	The lithium ionic conductivity of 2LiBH4-MgH2 composite as solid electrolyte. *Inorganic Chemistry Communication*, **2017**, 83, 62-65	3.1	6
32	Effects of VF4 on the hydriding cycling at 373 K and dehydriding of Mg99Ni prepared by hydriding combustion synthesis and mechanical milling (HCS+MM). *Journal of Alloys and Compounds*, **2017**, 698, 913-920	5.7	5
31	Surface modification of Mg3MnNi2 hydrogen storage electrode alloy with polyaniline. *International Journal of Hydrogen Energy*, **2017**, 42, 14220-14226	6.7	5
30	Synergistically tuned hydrogen storage thermodynamics and kinetics of Mg-Al alloys by Cu formed in situ mechanochemically. *Journal of Alloys and Compounds*, **2019**, 806, 370-377	5.7	5
29	LiBH4-NaX (X=Cl, I) composites with enhanced lithium ionic conductivity. *Journal of Alloys and Compounds*, **2018**, 764, 307-313	5.7	5
28	Catalytic Effect of Multi-Wall Carbon Nanotubes Supported Nickel on Hydrogen Storage Properties of Mg99Ni Prepared by Hydriding Combustion Synthesis. *Materials Transactions*, **2014**, 55, 1149-1155	1.3	5
27	Direct synthesis of Nd3+ doped mesoporous TiO2 and investigation of its photocatalytic performance. *Journal of Sol-Gel Science and Technology*, **2012**, 64, 564-570	2.3	5

26	Hydrogen storage properties of the Zintl phase alloy SrAl2 doped with TiF3. *Journal of Alloys and Compounds*, **2010**, 492, 277-281	5.7	5
25	Effect of Si substitution for Al on the structural and hydrogenation properties of the Zintl phase alloy SrAl2. *Journal of Alloys and Compounds*, **2009**, 485, 439-443	5.7	5
24	Synergistic Catalytic Mechanism between Ni and Carbon Aerogel for Dehydrogenation of Mg-Based Hydrides. *Energy & Fuels*, **2020**, 34, 10232-10240	4.1	5
23	Ternary LiBH4-NaBH4-MgH2 composite as fast ionic conductor. *Solid State Ionics*, **2018**, 324, 109-113	3.3	4
22	Structural and hydrogenation properties of SrAl2□Nix alloys. *International Journal of Hydrogen Energy*, **2008**, 33, 7498-7504	6.7	4
21	Influence of Sn, Cd, and Si addition on the electrochemical performance of Al□nd□h sacrificial anodes. *Materials and Corrosion - Werkstoffe Und Korrosion*, **2020**, 71, 585-592	1.6	4
20	Vacancy-Mediated Hydrogen Spillover Improving Hydrogen Storage Properties and Air Stability of Metal Hydrides. *Small*, **2021**, 17, e2100852	11	4
19	Enhanced dehydrogenation properties of LiAlH4□Mg2NiH4 nanocomposites via doping Ti-based catalysts. *Materials Research Express*, **2019**, 6, 075067	1.7	3
18	Electrochemical properties of Mg3MnNi2-x% polymethyl methacrylate-multiwalled carbon nanotubes (PMMA-MWCNTs) (x = 25, 50, 75, 100). *Journal of Materials Science*, **2018**, 53, 6033-6041	4.3	3
17	Ultra-fine TiO2 nanoparticles supported on three-dimensionally ordered macroporous structure for improving the hydrogen storage performance of MgH2. *Applied Surface Science*, **2022**, 585, 152561	6.7	3
16	One-step self-assembly of TiO2/MXene heterostructures for improving the hydrogen storage performance of magnesium hydride. *Journal of Alloys and Compounds*, **2021**, 895, 162635	5.7	3
15	Synergistic effect of TiH2 and air exposure on enhancing hydrogen storage performance of Mg2NiH4. *Chemical Engineering Journal*, **2022**, 433, 134489	14.7	3
14	Purity of MgH2 Improved by the Process of Pre-milling Assisted Hydriding of Mg Powder under a Hydrogen Pressure of 0.5 MPa. *Russian Journal of Physical Chemistry A*, **2019**, 93, 665-673	0.7	2
13	Electrochemical hydrogen storage properties of□Mg Al Mn Ni quaternary alloys. *International Journal of Hydrogen Energy*, **2019**, 44, 8384-8391	6.7	2
12	Effect of surface oxidation on the hydriding and dehydriding of Mg2Ni alloy produced by hydriding combustion synthesis. *Journal of Materials Science*, **2007**, 42, 9725-9729	4.3	2
11	High ionic conductivities of composites of Li4(BH4)3I with two-dimensional MoS2 at room temperature. *Journal of Alloys and Compounds*, **2020**, 815, 152353	5.7	2
10	Preparations and de/re-hydrogenation properties of LixNa3-xAlH6 (x=0.9□1.3) non-stoichiometric compounds. *Journal of Alloys and Compounds*, **2017**, 729, 648-654	5.7	1
9	Enhanced hydrogen sorption kinetics of MgH2 catalyzed by a novel layered Ni/Al2O3 hybrid. *Journal of Alloys and Compounds*, **2021**, 162682	5.7	1

8	Catalysis derived from flower-like Ni MOF towards the hydrogen storage performance of magnesium hydride. *International Journal of Hydrogen Energy*, **2022**, 47, 9346-9356	6.7	0
7	Air-stable magnesium nickel hydride with autocatalytic and self-protective effect for reversible hydrogen storage. *Nano Research*,1	10	0
6	An exciting synergistic effect: realizing large-sized MgH2 dehydrogenation at lowered temperatures by locally assembling a heterophase composite. *Materials Today Energy*, **2019**, 14, 100345	7	0
5	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. *Processes*, **2022**, 10, 420	2.9	0
4	Significantly improved hydrogen storage properties of Mg90Al10 catalyzed by TiF3. *Journal of Alloys and Compounds*, **2022**, 908, 164581	5.7	0
3	Mechanism of improving hydrogenation of Mg by in-situ formation of Al* in hydriding combustion synthesis. *Journal of Alloys and Compounds*, **2022**, 911, 164969	5.7	0
2	Catalytic effect of micro/nano-Ni on dehydrogenation performance of Mg90Al10 during air exposure. *Applied Surface Science*, **2022**, 595, 153569	6.7	0
1	Supra Hydrolytic Catalysis of Ni Fe/rGO for Hydrogen Generation.. *Advanced Science*, **2022**, e2201428	13.6	