

Mohammad Ismail

List of Publications by Year in descending order

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88
papers

3,650
citations

71061

41
h-index

138417

58
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88
all docs

88
docs citations

88
times ranked

991
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrogen sorption improvement of MgH ₂ catalyzed by CeO ₂ nanopowder. Journal of Alloys and Compounds, 2017, 695, 2532-2538.	2.8	107
2	Effect of LaCl ₃ addition on the hydrogen storage properties of MgH ₂ . Energy, 2015, 79, 177-182.	4.5	106
3	Effects of NbF ₅ addition on the hydrogen storage properties of LiAlH ₄ . International Journal of Hydrogen Energy, 2010, 35, 2361-2367.	3.8	105
4	Catalytic effect of SrTiO ₃ on the hydrogen storage behaviour of MgH ₂ . Journal of Energy Chemistry, 2019, 28, 46-53.	7.1	104
5	The effect of K ₂ SiF ₆ on the MgH ₂ hydrogen storage properties. Journal of Magnesium and Alloys, 2020, 8, 832-840.	5.5	103
6	The hydrogen storage properties and catalytic mechanism of the CuFe ₂ O ₄ -doped MgH ₂ composite system. International Journal of Hydrogen Energy, 2019, 44, 318-324.	3.8	91
7	Effects of CNTs on the hydrogen storage properties of MgH ₂ and MgH ₂ -BCC composite. International Journal of Hydrogen Energy, 2010, 35, 7821-7826.	3.8	90
8	Nanoflakes MgNiO ₂ synthesised via a simple hydrothermal method and its catalytic roles on the hydrogen sorption performance of MgH ₂ . Journal of Alloys and Compounds, 2019, 796, 279-286.	2.8	90
9	The hydrogen storage properties and reaction mechanism of the MgH ₂ - NaAlH ₄ composite system. International Journal of Hydrogen Energy, 2011, 36, 9045-9050.	3.8	85
10	Improved Hydrogen Storage Properties of MgH ₂ Co-Doped with FeCl ₃ and Carbon Nanotubes. Journal of Physical Chemistry C, 2014, 118, 18878-18883.	1.5	85
11	LaFeO ₃ synthesised by solid-state method for enhanced sorption properties of MgH ₂ . Results in Physics, 2020, 16, 102844.	2.0	84
12	Advanced hydrogen storage of the Mg-Na-Al system: A review. Journal of Magnesium and Alloys, 2021, 9, 1111-1122.	5.5	83
13	Improved hydrogen desorption in lithium alanate by addition of SWCNT-metallic catalyst composite. International Journal of Hydrogen Energy, 2011, 36, 3593-3599.	3.8	81
14	MnFe ₂ O ₄ nanopowder synthesised via a simple hydrothermal method for promoting hydrogen sorption from MgH ₂ . International Journal of Hydrogen Energy, 2017, 42, 21114-21120.	3.8	79
15	Influence of different amounts of FeCl ₃ on decomposition and hydrogen sorption kinetics of MgH ₂ . International Journal of Hydrogen Energy, 2014, 39, 2567-2574.	3.8	78
16	Synergistic catalytic effect of SrTiO ₃ and Ni on the hydrogen storage properties of MgH ₂ . International Journal of Hydrogen Energy, 2018, 43, 6244-6255.	3.8	76
17	Significantly improved dehydrogenation of LiAlH ₄ catalysed with TiO ₂ nanopowder. International Journal of Hydrogen Energy, 2011, 36, 8327-8334.	3.8	75
18	Synthesis of BaFe ₁₂ O ₁₉ by solid state method and its effect on hydrogen storage properties of MgH ₂ . International Journal of Hydrogen Energy, 2018, 43, 20853-20860.	3.8	74

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19	An overview of reactive hydride composite (RHC) for solid-state hydrogen storage materials. International Journal of Hydrogen Energy, 2021, 46, 31674-31698.	3.8	74
20	Improvement of Hydrogen Storage Properties of MgH_2 Catalyzed by K_2NbF_7 and Multiwall Carbon Nanotube. Journal of Physical Chemistry C, 2018, 122, 11222-11233.	1.5	72
21	Improved hydrogen storage properties of MgH_2 by addition of Co_2NiO nanoparticles. RSC Advances, 2015, 5, 60983-60989.	1.7	70
22	Catalytic effect of $CeCl_3$ on the hydrogen storage properties of MgH_2 . Materials Chemistry and Physics, 2016, 170, 77-82.	2.0	70
23	Improved hydrogen storage properties of MgH_2 catalyzed with K_2NiF_6 . Journal of Energy Chemistry, 2016, 25, 832-839.	7.1	68
24	Improvement of hydrogen storage properties in MgH_2 catalysed by K_2NbF_7 . International Journal of Hydrogen Energy, 2018, 43, 14532-14540.	3.8	68
25	Recent advances in catalyst-enhanced $LiAlH_4$ for solid-state hydrogen storage: A review. International Journal of Hydrogen Energy, 2021, 46, 9123-9141.	3.8	68
26	Modification of $NaAlH_4$ properties using catalysts for solid-state hydrogen storage: A review. International Journal of Hydrogen Energy, 2021, 46, 766-782.	3.8	67
27	Effect of Na_3FeF_6 catalyst on the hydrogen storage properties of MgH_2 . Dalton Transactions, 2016, 45, 7085-7093.	1.6	62
28	Enhanced hydrogen storage performance of $LiAlH_4/MgH_2/TiF_3$ composite. International Journal of Hydrogen Energy, 2011, 36, 5369-5374.	3.8	58
29	Effect of adding different percentages of $HfCl_4$ on the hydrogen storage properties of MgH_2 . International Journal of Hydrogen Energy, 2021, 46, 8621-8628.	3.8	58
30	Nanolayer-like-shaped $MgFe_2O_4$ synthesised <i>via</i> a simple hydrothermal method and its catalytic effect on the hydrogen storage properties of MgH_2 . RSC Advances, 2018, 8, 15667-15674.	1.7	56
31	Influence of K_2TiF_6 additive on the hydrogen sorption properties of MgH_2 . International Journal of Hydrogen Energy, 2014, 39, 15563-15569.	3.8	55
32	Enhanced hydrogen storage properties of MgH_2 co-catalyzed with K_2NiF_6 and CNTs. Dalton Transactions, 2016, 45, 19380-19388.	1.6	55
33	Effect of different additives on the hydrogen storage properties of the $MgH_2-LiAlH_4$ destabilized system. RSC Advances, 2011, 1, 408.	1.7	53
34	Improved hydrogen storage performance of $MgH_2/NaAlH_4$ composite by addition of TiF_3 . International Journal of Hydrogen Energy, 2012, 37, 8395-8401.	3.8	52
35	Study on the hydrogen storage properties and reaction mechanism of $NaAlH_4/Mg(BH_4)_2$ (2:1) with and without TiF_3 additive. International Journal of Hydrogen Energy, 2015, 40, 7628-7635.	3.8	52
36	Study on the hydrogen storage properties and reaction mechanism of $NaAlH_4/MgH_2/LiBH_4$ ternary-hydride system. International Journal of Hydrogen Energy, 2014, 39, 8340-8346.	3.8	47

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37	A study on the effects of K_2ZrF_6 as an additive on the microstructure and hydrogen storage properties of MgH_2 . RSC Advances, 2015, 5, 9255-9260.	1.7	47
38	Effect of $SrFe_{12}O_{19}$ nanopowder on the hydrogen sorption properties of MgH_2 . RSC Advances, 2016, 6, 110004-110010.	1.7	46
39	An investigation on the hydrogen storage properties and reaction mechanism of the destabilized $MgH_2\text{-}Na_3AlH_6$ (4:1) system. International Journal of Hydrogen Energy, 2013, 38, 1478-1483.	3.8	45
40	Enhanced hydrogen storage properties of $4MgH_2\text{-}LiAlH_4$ composite system by doping with Fe_2O_3 nanopowder. International Journal of Hydrogen Energy, 2014, 39, 7834-7841.	3.8	45
41	Hydrogen storage properties of a destabilized MgH_2Sn system with TiF_3 addition. Journal of Alloys and Compounds, 2016, 678, 297-303.	2.8	44
42	Effect of K_2TiF_6 additive on the hydrogen storage properties of $4MgH_2\text{-}LiAlH_4$ destabilized system. International Journal of Hydrogen Energy, 2015, 40, 7671-7677.	3.8	32
43	Catalytic effect of $SrFe_{12}O_{19}$ on the hydrogen storage properties of $LiAlH_4$. International Journal of Hydrogen Energy, 2017, 42, 19126-19134.	3.8	32
44	Desorption properties of $LiAlH_4$ doped with $LaFeO_3$ catalyst. International Journal of Hydrogen Energy, 2019, 44, 11953-11960.	3.8	31
45	Improved hydrogen storage performances of $LiAlH_4$ + $Mg(BH_4)_2$. International Journal of Energy Research, 2021, 45, 2882-2898.	2.2	31
46	Study the effect of $SrFe_{12}O_{19}$ on $MgH_2/LiAlH_4$ composite for solid-state hydrogen storage. International Journal of Hydrogen Energy, 2017, 42, 29830-29839.	3.8	28
47	The hydrogen storage properties and reaction mechanism of the $NaAlH_4\text{-}Ca(BH_4)_2$ composite system. International Journal of Hydrogen Energy, 2018, 43, 11132-11140.	3.8	27
48	Enhancement of dehydrogenation properties in $LiAlH_4$ catalysed by $BaFe_{12}O_{19}$. Journal of Alloys and Compounds, 2020, 835, 155183.	2.8	26
49	Catalytic effects of $MgFe_2O_4$ addition on the dehydrogenation properties of $LiAlH_4$. International Journal of Hydrogen Energy, 2019, 44, 28227-28234.	3.8	24
50	Understanding the dehydrogenation properties of MgH_2 catalysed by Na_3AlF_6 . International Journal of Hydrogen Energy, 2019, 44, 30583-30590.	3.8	23
51	Dehydrogenation Properties and Catalytic Mechanism of the K_2NiF_6 -Doped $NaAlH_4$ System. ACS Omega, 2018, 3, 17100-17107.	1.6	22
52	The Hydrogen Storage Properties of Destabilized $MgH_2\text{-}AlH_3$ (2:1) System. Materials Today: Proceedings, 2016, 3, S80-S87.	0.9	21
53	Improved hydrogen storage properties of $NaAlH_4MgH_2LiBH_4$ ternary-hydride system catalyzed by TiF_3 . International Journal of Hydrogen Energy, 2016, 41, 18107-18113.	3.8	21
54	Catalytic effect of $SrTiO_3$ on the dehydrogenation properties of $LiAlH_4$. Journal of Alloys and Compounds, 2021, 855, 157475.	2.8	21

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55	The hydrogen storage properties of Mg-Li-Al composite system catalyzed by K ₂ ZrF ₆ . Journal of Physics and Chemistry of Solids, 2017, 104, 214-220.	1.9	19
56	A study on the hydrogen storage properties and reaction mechanism of Na ₃ AlH ₆ LiBH ₄ composite system. International Journal of Hydrogen Energy, 2018, 43, 8365-8374.	3.8	19
57	Functions of MgH ₂ in the Hydrogen Storage Properties of a Na ₃ AlH ₆ LiBH ₄ Composite. Journal of Physical Chemistry C, 2018, 122, 23959-23967.	1.5	19
58	Catalytic effect of MgFe ₂ O ₄ on the hydrogen storage properties of Na ₃ AlH ₆ LiBH ₄ composite system. International Journal of Hydrogen Energy, 2018, 43, 20882-20891.	3.8	19
59	Influence of K ₂ NbF ₇ Catalyst on the Desorption Behavior of LiAlH ₄ . Frontiers in Chemistry, 2020, 8, 457.	1.8	19
60	Enhanced dehydrogenation performance of NaAlH ₄ by the addition of spherical SrTiO ₃ . International Journal of Energy Research, 2021, 45, 8648-8658.	2.2	19
61	Enhancement of hydrogen storage properties in 4MgH ₂ Na ₃ AlH ₆ composite catalyzed by TiF ₃ . International Journal of Hydrogen Energy, 2017, 42, 21096-21104.	3.8	18
62	Modifying the hydrogen storage performances of NaBH ₄ by catalyzing with MgFe ₂ O ₄ synthesized via hydrothermal method. International Journal of Hydrogen Energy, 2019, 44, 6720-6727.	3.8	18
63	Effect of K ₂ NbF ₇ on the hydrogen release behaviour of NaAlH ₄ . Journal of Alloys and Compounds, 2021, 851, 156686.	2.8	18
64	Hydrogen storage properties of Mg-Li-Al composite system doped with Al ₂ TiO ₅ catalyst for solid-state hydrogen storage. Journal of Alloys and Compounds, 2021, 870, 159469.	2.8	18
65	Intensive investigation on hydrogen storage properties and reaction mechanism of the NaBH ₄ -Li ₃ AlH ₆ destabilized system. International Journal of Hydrogen Energy, 2019, 44, 21965-21978.	3.8	17
66	Significant effect of TiF ₃ on the performance of 2NaAlH ₄ +Ca(BH ₄) ₂ hydrogen storage properties. International Journal of Hydrogen Energy, 2019, 44, 21979-21987.	3.8	16
67	Enhanced the hydrogen storage properties and reaction mechanisms of 4MgH ₂ LiAlH ₄ composite system by addition with TiO ₂ . International Journal of Energy Research, 2021, 45, 21365-21374.	2.2	15
68	An Overview of the Recent Advances of Additive-Improved Mg(BH ₄) ₂ for Solid-State Hydrogen Storage Material. Energies, 2022, 15, 862.	1.6	13
69	Recent Advances on MgLiAl Systems for Solid-State Hydrogen Storage: A Review. Frontiers in Energy Research, 2022, 10, .	1.2	13
70	Enhanced hydrogen storage performance of destabilized 4MgH ₂ Li ₃ AlH ₆ system doped with Co ₂ NiO nanopowder. International Journal of Hydrogen Energy, 2015, 40, 10131-10138.	3.8	12
71	Hydrogen storage properties of 4MgH ₂ Li ₃ AlH ₆ composite improved by the addition of K ₂ TiF ₆ . International Journal of Hydrogen Energy, 2015, 40, 12713-12720.	3.8	12
72	Enhancing the dehydrogenation properties of LiAlH ₄ using K ₂ NiF ₆ as additive. International Journal of Hydrogen Energy, 2022, 47, 24843-24851.	3.8	11

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73	Enhanced hydrogen storage properties of K ₂ TiF ₆ doped Mg-Na-Al composite system. Materials Chemistry and Physics, 2018, 217, 350-356.	2.0	10
74	CoFe ₂ O ₄ synthesized via a solvothermal method for improved dehydrogenation of NaAlH ₄ . International Journal of Hydrogen Energy, 2022, 47, 41320-41328.	3.8	9
75	Catalytic effect of Al ₂ TiO ₅ on the dehydrogenation properties of LiAlH ₄ . International Journal of Hydrogen Energy, 2022, 47, 31903-31910.	3.8	9
76	Improved hydrogen storage properties of Mg-Li-Al-H composite system by milling with Fe ₂ O ₃ powder. Advanced Powder Technology, 2017, 28, 2151-2158.	2.0	8
77	Study of the Hydrogen Storage Properties and Catalytic Mechanism of a MgH ₂ Na ₃ AlH ₆ System Incorporating FeCl ₃ . ACS Omega, 2021, 6, 18948-18956.	1.6	8
78	An investigation on the addition of SrTiO ₃ to the hydrogen storage properties of the 4MgH ₂ Li ₃ AlH ₆ composite. International Journal of Energy Research, 2022, 46, 8030-8041.	2.2	8
79	The catalytic effect of an inert additive (SrTiO ₃) on the hydrogen storage properties of 4MgH ₂ Na ₃ AlH ₆ . International Journal of Hydrogen Energy, 2018, 43, 20801-20810.	3.8	7
80	Magnetism and Thermomechanical Properties in Si Substituted MnCoGe Compounds. Crystals, 2021, 11, 694.	1.0	7
81	Study the Effect of NiF ₂ Additive on the Hydrogen Sorption Properties of 4MgH ₂ +Li ₃ AlH ₆ Destabilized System. Materials Today: Proceedings, 2016, 3, S96-S103.	0.9	6
82	Effects of TiF ₃ addition on the hydrogen storage properties of 4MgH ₂ +Cd composite. International Journal of Hydrogen Energy, 2019, 44, 30574-30582.	3.8	5
83	Structure analysis using XRD refinement for replacement of copper (Cu) with manganese (Mn) in NdMn ₂ Si ₂ compound. AIP Conference Proceedings, 2019, , .	0.3	4
84	Novel materials and technologies for hydrogen storage. , 2020, , 337-365.		4
85	Designing Nanoconfined LiBH ₄ for Solid-State Electrolytes. Frontiers in Chemistry, 2022, 10, 866959.	1.8	3
86	Designing lithium ion batteries for high power applications. , 0, , .		0
87	Structural Behaviour and Electrical Properties of a Ball Milled MnCoGe Compounds. Key Engineering Materials, 0, 908, 326-331.	0.4	0
88	The Effect of Annealing Temperatures on the Phase Transition and Structural Properties of MnCoGe Compound. Key Engineering Materials, 0, 908, 332-336.	0.4	0