Ankur Jain

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/7004475/publications.pdf

Version: 2024-02-01

		236612	161609
92	3,159	25	54
papers	citations	h-index	g-index

93	93	93	2078
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Hydrogen storage in Mg: A most promising material. International Journal of Hydrogen Energy, 2010, 35, 5133-5144.	3.8	953
2	Novel hydrogen storage materials: A review of lightweight complex hydrides. Journal of Alloys and Compounds, 2010, 503, 303-339.	2.8	421
3	Development of vanadium based hydrogen storage material: A review. Renewable and Sustainable Energy Reviews, 2017, 72, 791-800.	8.2	156
4	Significance of Hydrogen as Economic and Environmentally Friendly Fuel. Energies, 2021, 14, 7389.	1.6	93
5	Catalytic effect of TiF4 in improving hydrogen storage properties of MgH2. International Journal of Hydrogen Energy, 2016, 41, 14178-14183.	3.8	71
6	Improving hydrogen sorption kinetics of MgH2 by mechanical milling with TiF3. Journal of Alloys and Compounds, 2007, 432, L1-L4.	2.8	65
7	How does TiF₄ affect the decomposition of MgH₂ and its complex variants? â€“ An XPS investigation. Journal of Materials Chemistry A, 2017, 5, 15543-15551.	5.2	65
8	Surface modification of MgH2 by ZrCl4 to tailor the reversible hydrogen storage performance. International Journal of Hydrogen Energy, 2017, 42, 6152-6159.	3.8	61
9	Enhancement of hydrogen desorption kinetics in magnesium hydride by doping with lithium metatitanate. Journal of Alloys and Compounds, 2017, 711, 400-405.	2.8	57
10	The enhanced de/re-hydrogenation performance of MgH₂ with TiH₂ additive. International Journal of Energy Research, 2018, 42, 1139-1147.	2.2	50
11	Effect of Cu catalyst on the hydrogenation and thermodynamic properties of Mg2Ni. International Journal of Hydrogen Energy, 2012, 37, 3755-3760.	3.8	44
12	Catalytic effect of ZrCrNi alloy on hydriding properties of MgH2. International Journal of Hydrogen Energy, 2009, 34, 9157-9162.	3.8	42
13	Study of cyclic performance of V-Ti-Cr alloys employed for hydrogen compressor. International Journal of Hydrogen Energy, 2018, 43, 2881-2889.	3.8	40
14	Phase and morphology evolution study of ball milled Mgâ€“Co hydrogen storage alloys. International Journal of Hydrogen Energy, 2013, 38, 7070-7076.	3.8	39
15	Study on the thermal decomposition of NaBH 4 catalyzed by ZrCl 4. International Journal of Hydrogen Energy, 2017, 42, 22432-22437.	3.8	37
16	Impurity Gas Analysis of the Decomposition of Complex Hydrides. Journal of Physical Chemistry C, 2011, 115, 17220-17226.	1.5	35
17	Destabilization of lithium hydride by the substitution of group 14 elements: A review. International Journal of Hydrogen Energy, 2016, 41, 5969-5978.	3.8	34
18	Catalytic Tuning of Sorption Kinetics of Lightweight Hydrides: A Review of the Materials and Mechanism. Catalysts, 2018, 8, 651.	1.6	34

#	Article	IF	Citations
19	Hydrogen storage properties of Mg2Ni affected by Cr catalyst. International Journal of Hydrogen Energy, 2012, 37, 16013-16017.	3.8	33
20	Flower-like Bi₂S₃ nanostructures as highly efficient anodes for all-solid-state lithium-ion batteries. RSC Advances, 2019, 9, 29549-29555.	1.7	33
21	A new synthesis route of ammonia production through hydrolysis of metal â€“ Nitrides. International Journal of Hydrogen Energy, 2017, 42, 24897-24903.	3.8	30
22	Effect of ZrCrCo alloy on hydrogen storage properties of Mg. Journal of Alloys and Compounds, 2015, 645, S518-S523.	2.8	29
23	Destabilization of LiH by Li Insertion into Ge. Journal of Physical Chemistry C, 2013, 117, 5650-5657.	1.5	28
24	Highly stable nanostructured Bi2Se3 anode material for all solid-state lithium-ion batteries. Journal of Alloys and Compounds, 2020, 838, 155403.	2.8	28
25	Synthesis, characterization and hydrogenation of ZrFe2-xNixZrFe2-xNix (x=0.2,0.4,0.6,0.8)(x=0.2,0.4,0.6,0.8) alloys. International Journal of Hydrogen Energy, 2007, 32, 3965-3971.	3.8	27
26	Thermodynamics and structural aspects of hydrogen absorption in Zr1-xCrxFe2Zr1-xCrxFe2 alloys. International Journal of Hydrogen Energy, 2007, 32, 2445-2449.	3.8	26
27	Characterization and hydrogenation of CeNi5â^'xCrx (x=0, 1, 2) alloys. Journal of Alloys and Compounds, 2007, 430, 165-169.	2.8	25
28	Mobility and dynamics in the complex hydrides LiAlH4 and LiBH4. Faraday Discussions, 2011, 151, 213.	1.6	25
29	Improved hydrogen release from magnesium borohydride by ZrCl4 additive. International Journal of Hydrogen Energy, 2017, 42, 22342-22347.	3.8	24
30	Implementation of Bismuth Chalcogenides as an Efficient Anode: A Journey from Conventional Liquid Electrolyte to an All-Solid-State Li-Ion Battery. Molecules, 2020, 25, 3733.	1.7	22
31	Improved hydrogen desorption properties of exfoliated graphite and graphene nanoballs modified MgH2. International Journal of Hydrogen Energy, 2022, 47, 41891-41897.	3.8	22
32	Structural and MÃ¶ssbauer spectroscopic study of cubic phase ZrFe2â^'xMnx hydrogen storage alloy. Journal of Alloys and Compounds, 2008, 454, 31-37.	2.8	21
33	Effect of Magnesium Fluoride on Hydrogenation Properties of Magnesium Hydride. Energies, 2015, 8, 12546-12556.	1.6	21
34	Development of Mg Li B based advanced material for onboard hydrogen storage solution. International Journal of Hydrogen Energy, 2017, 42, 3963-3970.	3.8	20
35	LiBH4 as solid electrolyte for Li-ion batteries with Bi2Te3 nanostructured anode. International Journal of Hydrogen Energy, 2018, 43, 21709-21714.	3.8	20
36	Highly efficient & stable Bi & Sb anodes using lithium borohydride as solid electrolyte in Li-ion batteries. RSC Advances, 2019, 9, 13077-13081.	1.7	20

#	Article	IF	Citations
37	Crystal structure, hydrogen absorption and thermodynamics of Zr1â^'xCoxFe2 alloys. Journal of Alloys and Compounds, 2007, 438, 106-109.	2.8	19
38	Hydrogenation behaviour of Ce-based AB5 intermetallic compounds. Journal of Alloys and Compounds, 2007, 440, 84-88.	2.8	19
39	Correlation between the milling time and hydrogen-storage properties of nanostructured ZrFeNi ternary alloy. Journal of Alloys and Compounds, 2009, 480, 325-328.	2.8	17
40	Catalytic effect of bis (cyclopentadienyl) nickel II on the improvement of the hydrogenation-dehydrogenation of Mg-MgH2 system. International Journal of Hydrogen Energy, 2017, 42, 17178-17183.	3.8	16
41	Nanostructured Bi2Te3 as anode material as well as a destabilizing agent for LiBH4. International Journal of Hydrogen Energy, 2020, 45, 16992-16999.	3.8	16
42	Correlation between electrochemical behavior and hydrogen storage properties of Liâ€"Sn system. Journal of Alloys and Compounds, 2013, 580, S211-S215.	2.8	15
43	Catalytic modification in dehydrogenation properties of KSiH₃. Physical Chemistry Chemical Physics, 2014, 16, 26163-26167.	1.3	15
44	Two-Peak Mystery of LiNH2â€"NaH Dehydrogenation Is Solved? A Study of the Analogous Sodium Amide/Lithium Hydride System. Journal of Physical Chemistry C, 2016, 120, 27903-27909.	1.5	15
45	Effect of La-content on the hydrogenation properties of the Ce1â^'xLaxNi3Cr2 (x=0.2, 0.4, 0.6, 0.8, 1) alloys. International Journal of Hydrogen Energy, 2012, 37, 3683-3688.	3.8	14
46	The effects of Ni and Mg2Ni interlayer on hydrogenation properties of Pd sandwiched Mg films. Journal of Alloys and Compounds, 2011, 509, 2105-2110.	2.8	13
47	The destabilization of LiBH4 through the addition of Bi2Se3 nanosheets. International Journal of Hydrogen Energy, 2020, 45, 23947-23953.	3.8	11
48	Enhanced performance of MgH2 composite electrode using glass-ceramic electrolytes for all-solid-state Li-ion batteries. Journal of Alloys and Compounds, 2021, 863, 158729.	2.8	11
49	Ion beam induced mixing at Co/Si interface. Vacuum, 2008, 83, 397-400.	1.6	10
50	Correlation between the milling time and hydrogen storage properties of ZrCrFe ternary alloy. International Journal of Hydrogen Energy, 2010, 35, 9910-9915.	3.8	10
51	Comparative study on hydrogenation properties of Pd capped Mg and Mg/Al films. International Journal of Hydrogen Energy, 2012, 37, 3779-3785.	3.8	10
52	High capacity MgH2 composite electrodes for all-solid-state Li-ion battery operating at ambient temperature. International Journal of Hydrogen Energy, 2021, 46, 1030-1037.	3.8	10
53	Tailoring the absorptionâ€"desorption properties of KSiH3 compound using nano-metals (Ni, Co, Nb) as catalyst. Journal of Alloys and Compounds, 2015, 645, S144-S147.	2.8	9
54	Electrochemical reaction mechanism for Bi2Te3-based anode material in highly durable all solid-state lithium-ion batteries. Journal of Materials Science: Materials in Electronics, 2020, 31, 16429-16436.	1.1	9

#	Article	IF	Citations
55	Lithiation mechanism of antimony chalcogenides (<scp> Sb ₂ X ₃ </scp> ; X = S,) Tj ETQq1 1 0.784314 rgBT Research, 2021, 45, 11135-11145.	2.2	9
56	The Catalytic Role of D-block Elements and Their Compounds for Improving Sorption Kinetics of Hydride Materials: A Review. Reactions, 2021, 2, 333-364.	0.9	9
57	Synthesis of nano-crystalline Zr-M (M=Ni, Co, Fe, Cu) bilayer films and their thermodynamics of hydrogen uptake by resistance measurement. International Journal of Hydrogen Energy, 2010, 35, 9893-9900.	3.8	8
58	Kinetic Enhancement in the Sorption Properties by Forming Mgâ€“x wt % ZrCrCu Composites. Journal of Physical Chemistry C, 2013, 117, 11953-11959.	1.5	8
59	Hydrogen Sorption and Cyclic Compressor Performance of V₄₀Ti_{21.5}Cr_{33.5}M₅ (M= Nb, Zr, Fe) Alloys. Nihon Enerugi Gakkaishi/Journal of the Japan Institute of Energy, 2019, 98, 157-164.	0.2	8
60	Ammonia suppression during decomposition of sodium amide by the addition of metal hydride. International Journal of Hydrogen Energy, 2017, 42, 22388-22394.	3.8	7
61	Critical Temperature and Pressure Conditions of Degradation during Thermochemical Hydrogen Compression: A Case Study of V-Based Hydrogen Storage Alloy. Energies, 2020, 13, 2324.	1.6	7
62	Destabilization of LiBH₄ by the infusion of Bi₂X₃ (X = S, Se, Te): an in situ TEM investigation. Journal of Materials Chemistry A, 2020, 8, 25706-25715.	5.2	7
63	Structural and electrical properties of swift heavy ion beam irradiated Co/Si interface. Bulletin of Materials Science, 2006, 29, 187-191.	0.8	6
64	Structural, electrical and thermodynamical aspects of hydrogenated La-Ni-Si alloy. Bulletin of Materials Science, 2006, 29, 67-72.	0.8	6
65	Hydrogen absorption effects in ZrFe2â^'xNix compounds by means of 57Fe MÃ¶ssbauer spectroscopy. Journal of Magnetism and Magnetic Materials, 2007, 318, 44-48.	1.0	6
66	Surface morphology and the phase formation at Cr/Si system. Applied Surface Science, 2007, 253, 4721-4726.	3.1	6
67	Structural and thermodynamical investigations of La0.23Ni0.34Co0.33Nd0.08Ti0.01Al0.01 hydrogen storage alloy. International Journal of Hydrogen Energy, 2008, 33, 356-359.	3.8	6
68	Hydriding behavior of Mg-50Âwt% ZrCrFe composite Prepared by high energy ball milling. International Journal of Hydrogen Energy, 2012, 37, 3665-3670.	3.8	6
69	Thermodynamics and kinetics of hydrogen absorptionâ€“desorption of vanadium synthesized by aluminothermy. Journal of Thermal Analysis and Calorimetry, 2017, 130, 721-726.	2.0	6
70	Iron based catalyst for the improvement of the sorption properties of KSiH3. International Journal of Hydrogen Energy, 2020, 45, 33681-33686.	3.8	6
71	Hydrogen uptake characteristics of mischmetal based alloy. Journal of Power Sources, 2006, 159, 132-134.	4.0	5
72	Structural and H2 sorption properties of MgH2â€“10Âwt%ZrCrM (MÂ=ÂCu, Ni) nano-composites. Journal of Nanoparticle Research, 2011, 13, 5719-5726.	0.8	5

#	Article	IF	Citations
73	Eutectic Phenomenon of LiNH2-KH Composite in MH-NH3 Hydrogen Storage System. Molecules, 2019, 24, 1348.	1.7	5
74	Eutectic melting in x(2LiBH4-MgH2) hydrogen storage system by the addition of KH. International Journal of Hydrogen Energy, 2020, 45, 17000-17005.	3.8	5
75	Effect of isovalent substitution on the structural and electrical properties of BixSb2-xTe3 topological insulator single crystals. Materials Today: Proceedings, 2020, 31, 616-621.	0.9	5
76	Hydrogen storage behavior of TiFe alloy activated by different methods. Materials Letters: X, 2021, 9, 100061.	0.3	5
77	All-Solid-State Li-Ion Batteries Using a Combination of Sb₂S₃/Li₂S-P₂S₅/Acetylene Black as the Electrode Composite and LiBH₄ as the Electrolyte. ACS Applied Energy Materials, 2021, 4, 6269-6276.	2.5	5
78	Structural and Hydrogen Storage Properties Of Mg-x Wt% ZrCrMn Composites. Advanced Materials Letters, 2014, 5, 692-698.	0.3	5
79	Carbon nanotube-sulfur nanocomposite electrodes for high energyâ€“foldable lithium sulfur battery. Materials Today: Proceedings, 2021, 42, 1638-1641.	0.9	4
80	Structural and Morphological Modifications Induced by Fe Ion Implantation in Sb₂Te₃ Thin Films. Macromolecular Symposia, 2021, 399, 2100079.	0.4	3
81	Pseudo-Binary Phase Diagram of LiNH2-MH (M = Na, K) Eutectic Mixture. Molecules, 2022, 27, 4093.	1.7	3
82	Growth and structural characterization of BiSbTe3-ySey single crystals. Materials Today: Proceedings, 2020, 31, 622-624.	0.9	2
83	Electrochemical Performance of Graphene-Modulated Sulfur Composite Cathodes Using LiBH4 Electrolyte for All-Solid-State Li-S Battery. Energies, 2021, 14, 7362.	1.6	2
84	Correlation between hydrogen absorption, electrical resistivity and optical properties in La28.9Ni67.5Si3.6 thin film. International Journal of Hydrogen Energy, 2008, 33, 413-416.	3.8	1
85	Hydrogen Sorption Characteristics of ZrCrAl Ternary Alloy as a Function of Milling Time. Macromolecular Symposia, 2017, 376, 1700047.	0.4	1
86	Enhancement in hydrogenation dehydrogenation kinetics of KSiH3 by the addition of Ti-based catalysts. Materials Letters: X, 2021, 11, 100086.	0.3	1
87	Milling induced surface modification of V-based catalyst to improve sorption kinetics of KSiH3: An XPS investigation. International Journal of Hydrogen Energy, 2022, , .	3.8	1
88	Electrical and optical properties of hydrogenated RNi5/CoRNi5/Co (R=CeR=Ce, La) bi-layer systems. International Journal of Hydrogen Energy, 2007, 32, 1916-1921.	3.8	0
89	Effect of multiwall carbon nanotubes on photo catalytic activity of CdS nanocrystals. Materials Today: Proceedings, 2021, 38, 1218-1221.	0.9	0
90	Conversion reaction of TiFe hydride as anode material for all-solid-state Lithium-ion batteries. Materials Letters: X, 2021, 10, 100067.	0.3	0

#	Article	IF	Citations
91	Chalcogenides as Anode Material for All-Solid-State Li-Ion Batteries. ACS Symposium Series, 0, , 57-86.	0.5	0
92	Application of Metal Hydrides for All-Solid-State Li-Ion Batteries. ACS Symposium Series, 0, , 87-112.	0.5	0