Giovanni Capurso

List of Publications by Year
in descending order

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36 papers	1,232 citations	430754 18 h-index	360920 35 g-index
36 all docs	36 docs citations	36 times ranked	1224 citing authors

#	Article	IF	Citations
1	Application of hydrides in hydrogen storage and compression: Achievements, outlook and perspectives. International Journal of Hydrogen Energy, 2019, 44, 7780-7808.	3.8	486
2	Metal hydrides for concentrating solarÂthermal power energy storage. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	95
3	Waste Mg-Al based alloys for hydrogen storage. International Journal of Hydrogen Energy, 2018, 43, 16738-16748.	3.8	54
4	Hydrogen sorption kinetics of magnesium hydride enhanced by the addition of Zr 8 Ni 21 alloy. Journal of Alloys and Compounds, 2012, 530, 111-115.	2.8	46
5	Hydrogen storage characteristics of magnesium impregnated on the porous channels of activated charcoal scaffold. International Journal of Hydrogen Energy, 2014, 39, 20045-20053.	3.8	41
6	Fundamental hydrogen storage properties of TiFe-alloy with partial substitution of Fe by Ti and Mn. Journal of Alloys and Compounds, 2021, 874, 159925.	2.8	39
7	HYDRIDE4MOBILITY: An EU HORIZON 2020 project on hydrogen powered fuel cell utility vehicles using metal hydrides in hydrogen storage and refuelling systems. International Journal of Hydrogen Energy, 2021, 46, 35896-35909.	3.8	34
8	Pellets of MgH2-based composites as practical material for solid state hydrogen storage. International Journal of Hydrogen Energy, 2010, 35, 3565-3571.	3.8	32
9	Development of a modular room-temperature hydride storage system for vehicular applications. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	30
10	Nanoconfined mixed Li and Mg borohydrides as materials for solid state hydrogen storage. International Journal of Hydrogen Energy, 2012, 37, 10768-10773.	3.8	25
11	Nanoconfinement in activated mesoporous carbon of calcium borohydride for improved reversible hydrogen storage. Nanotechnology, 2012, 23, 385401.	1.3	24
12	The structural change of graphene oxide in a methanol dispersion. RSC Advances, 2014, 4, 32914-32917.	1.7	24
13	Fundamental Material Properties of the 2LiBH4-MgH2 Reactive Hydride Composite for Hydrogen Storage: (I) Thermodynamic and Heat Transfer Properties. Energies, 2018, 11, 1081.	1.6	24
14	Improvement of dehydrogenation kinetics of LiBH4dispersed on modified multi-walled carbon nanotubes. Nanotechnology, 2010, 21, 065707.	1.3	22
15	Air-stable metal hydride-polymer composites of Mg(NH2)2â€“LiH and TPXâ„¢. Materials Today Energy, 2018, 10, 98-107.	2.5	22
16	Efficient Synthesis of Alkali Borohydrides from Mechanochemical Reduction of Borates Using Magnesiumâ€“Aluminum-Based Waste. Metals, 2019, 9, 1061.	1.0	22
17	Fundamental Material Properties of the 2LiBH4-MgH2 Reactive Hydride Composite for Hydrogen Storage: (II) Kinetic Properties. Energies, 2018, 11, 1170.	1.6	21
18	Scale-up of milling in a 100ÂL device for processing of TiFeMn alloy for hydrogen storage applications: Procedure and characterization. International Journal of Hydrogen Energy, 2019, 44, 29282-29290.	3.8	18

#	Article	IF	Citations
19	Study on Laâ€“Mg based ternary system for hydrogen storage. Journal of Alloys and Compounds, 2013, 580, S159-S162.	2.8	16
20	Conversion of magnesium waste into a complex magnesium hydride system: Mg(NH₂)₂â€“LiH. Sustainable Energy and Fuels, 2020, 4, 1915-1923.	2.5	16
21	200 NL H2 hydrogen storage tank using MgH2â€“TiH2â€“C nanocomposite as H storage material. International Journal of Hydrogen Energy, 2021, 46, 19046-19059.	3.8	16
22	Metal Hydrideâ€Based Hydrogen Storage Tank Coupled with an Urban Concept Fuel Cell Vehicle: Off Board Tests. Advanced Sustainable Systems, 2018, 2, 1800004.	2.7	15
23	Enhanced Stability of Li-RHC Embedded in an Adaptive TPXâ„¢ Polymer Scaffold. Materials, 2020, 13, 991.	1.3	14
24	Ball-milling and AlB2 addition effects on the hydrogen sorption properties of the CaH2+MgB2 system. Journal of Alloys and Compounds, 2011, 509, S714-S718.	2.8	13
25	Hydrogen sorption kinetics, hydrogen permeability, and thermal properties of compacted 2LiBH4MgH2 doped with activated carbon nanofibers. International Journal of Hydrogen Energy, 2019, 44, 15218-15227.	3.8	12
26	Insights into the Rbâ€“Mgâ€“Nâ€“H System: an Ordered Mixed Amide/Imide Phase and a Disordered Amide/Hydride Solid Solution. Inorganic Chemistry, 2018, 57, 3197-3205.	1.9	11
27	Effect of the Process Parameters on the Energy Transfer during the Synthesis of the 2LiBH4-MgH2 Reactive Hydride Composite for Hydrogen Storage. Metals, 2019, 9, 349.	1.0	11
28	Development and experimental validation of kinetic models for the hydrogenation/dehydrogenation of Mg/Al based metal waste for energy storage. Journal of Magnesium and Alloys, 2022, 10, 2761-2774.	5.5	11
29	Performance tests of a small hydrogen reactor based on Mgâ€“Al pellets. Journal of Alloys and Compounds, 2011, 509, S646-S649.	2.8	10
30	Mesoporous silica sub-micron spheres as drug dissolution enhancers: Influence of drug and matrix chemistry on functionality and stability. Materials Science and Engineering C, 2016, 59, 585-593.	3.8	7
31	An effective activation method for industrially produced TiFeMn powder for hydrogen storage. Journal of Alloys and Compounds, 2022, 919, 165847.	2.8	6
32	Modeling the kinetic behavior of the Li-RHC system for energy-hydrogen storage: (I) absorption. International Journal of Hydrogen Energy, 2021, 46, 32110-32125.	3.8	5
33	Engineering Solutions in Scale-Up and Tank Design for Metal Hydrides. Materials Science Forum, 0, 941, 2220-2225.	0.3	4
34	A Novel Emergency Gas-to-Power System Based on an Efficient and Long-Lasting Solid-State Hydride Storage System: Modeling and Experimental Validation. Energies, 2022, 15, 844.	1.6	3
35	De-hydrogenation/Rehydrogenation Properties and Reaction Mechanism of AmZn(NH2)n-2nLiH Systems (A = Li, K, Na, and Rb). Sustainability, 2022, 14, 1672.	1.6	2
36	Innovative Systems for Hydrogen Storage. Advances in Science and Technology, 2010, 72, 176-181.	0.2	1