JuliÃ¡n Puszkiel

List of Publications by Year
in descending order

49 papers	1,541 citations	304368 22 h-index	301761 39 g-index
49 all docs	49 docs citations	49 times ranked	1201 citing authors

#	Article	IF	Citations
1	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
2	Magnesium- and intermetallic alloys-based hydrides for energy storage: modelling, synthesis and properties. Progress in Energy, 2022, 4, 032007.	4.6	29
3	A comprehensive study on lithium-based reactive hydride composite (Li-RHC) as a reversible solid-state hydrogen storage system toward potential mobile applications. RSC Advances, 2021, 11, 23122-23135.	1.7	6
4	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
5	Enhanced Hydrogen Storage Properties of Li-RHC System with In-House Synthesized AlTi3 Nanoparticles. Energies, 2021, 14, 7853.	1.6	2
6	Improved kinetic behaviour of Mg(NH2)2-2LiH doped with nanostructured K-modified-LixTiyOz for hydrogen storage. Scientific Reports, 2020, 10, 8.	1.6	25
7	CO₂ reactivity with Mg₂NiH₄ synthesized by <i>in situ</i> monitoring of mechanical milling. Physical Chemistry Chemical Physics, 2020, 22, 1944-1952.	1.3	11
8	Dual application of Ti-catalyzed Li-RHC composite for H2 purification and CO methanation. International Journal of Hydrogen Energy, 2020, 45, 19493-19504.	3.8	3
9	Designing an AB2-Type Alloy (TiZr-CrMnMo) for the Hybrid Hydrogen Storage Concept. Energies, 2020, 13, 2751.	1.6	20
10	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
11	Enhanced Stability of Li-RHC Embedded in an Adaptive TPXâ„¢ Polymer Scaffold. Materials, 2020, 13, 991.	1.3	14
12	Tuning LiBH4 for Hydrogen Storage: Destabilization, Additive, and Nanoconfinement Approaches. Molecules, 2020, 25, 163.	1.7	46
13	CO₂ reutilization for methane production <i>via</i> a catalytic process promoted by hydrides. Physical Chemistry Chemical Physics, 2019, 21, 19825-19834.	1.3	24
14	Enhancement Effect of Bimetallic Amide K2Mn(NH2)4 and In-Situ Formed KH and Mn4N on the Dehydrogenation/Hydrogenation Properties of Liâ€“Mgâ€“Nâ€“H System. Energies, 2019, 12, 2779.	1.6	9
15	Efficient Synthesis of Alkali Borohydrides from Mechanochemical Reduction of Borates Using Magnesiumâ€“Aluminum-Based Waste. Metals, 2019, 9, 1061.	1.0	22
16	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
17	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
18	A new mutually destabilized reactive hydride system: LiBH4â€“Mg2NiH4. Journal of Energy Chemistry, 2019, 34, 240-254.	7.1	14

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19	Tuning the reaction mechanism and hydrogenation/dehydrogenation properties of 6Mg(NH2)29LiH system by adding LiBH4. International Journal of Hydrogen Energy, 2019, 44, 11920-11929.	3.8	21
20	Application of hydrides in hydrogen storage and compression: Achievements, outlook and perspectives. International Journal of Hydrogen Energy, 2019, 44, 7780-7808.	3.8	486
21	Design of a Nanometric AlTi Additive for MgB₂-Based Reactive Hydride Composites with Superior Kinetic Properties. Journal of Physical Chemistry C, 2018, 122, 7642-7655.	1.5	29
22	New Insight on the Hydrogen Absorption Evolution of the Mgâ€"Feâ€"H System under Equilibrium Conditions. Metals, 2018, 8, 967.	1.0	17
23	Fundamental Material Properties of the 2LiBH4-MgH2 Reactive Hydride Composite for Hydrogen Storage: (II) Kinetic Properties. Energies, 2018, 11, 1170.	1.6	21
24	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
25	In Situ Formation of TiB₂ Nanoparticles for Enhanced Dehydrogenation/Hydrogenation Reaction Kinetics of LiBH₄â€"MgH₂ as a Reversible Solid-State Hydrogen Storage Composite System. Journal of Physical Chemistry C, 2018, 122, 11671-11681.	1.5	29
26	Estudio y caracterizaciÃ³n del efecto de compuestos con titanio sobre el sistema hidruro Li-B-Mg-H con alta capacidad de almacenamiento de hidrÃ³geno. Revista Materia, 2018, 23, .	0.1	0
27	Changing the dehydrogenation pathway of LiBH₄â€"MgH₂via nanosized lithiated TiO₂. Physical Chemistry Chemical Physics, 2017, 19, 7455-7460.	1.3	25
28	A novel catalytic route for hydrogenationâ€"dehydrogenation of 2LiH + MgB₂via in situ formed coreâ€"shell Li_xTiO₂nanoparticles. Journal of Materials Chemistry A, 2017, 5, 12922-12933.	5.2	27
29	Kinetic alteration of the 6Mg(NH₂)₂â€"9LiHâ€"LiBH₄ system by co-adding YCl₃ and Li₃N. Physical Chemistry Chemical Physics, 2017, 19, 32105-32115.	1.3	10
30	Tetrahydroborates: Development and Potential as Hydrogen Storage Medium. Inorganics, 2017, 5, 74.	1.2	58
31	KNH₂â€"KH: a metal amideâ€"hydride solid solution. Chemical Communications, 2016, 52, 11760-11763.	2.2	14
32	Cyclic stability and structure of nanoconfined Ti-doped NaAlH 4. International Journal of Hydrogen Energy, 2016, 41, 4159-4167.	3.8	16
33	Hydrogen cycling properties of xMgâ€"Fe materials (x: 2, 3 and 15) produced by reactive ball milling. International Journal of Hydrogen Energy, 2016, 41, 1688-1698.	3.8	14
34	Structural and kinetic investigation of the hydride composite Ca(BH₄)₂ + MgH₂ system doped with NbF₅ for solid-state hydrogen storage. Physical Chemistry Chemical Physics, 2015, 17, 27328-27342.	1.3	25
35	Effect of Fe additive on the hydrogenation-dehydrogenation properties of 2LiHÂ+ÂMgB 2 /2LiBH 4 Â+ÂMgH 2 system. Journal of Power Sources, 2015, 284, 606-616.	4.0	31
36	Influence of milling parameters on the sorption properties of the LiHâ€"MgB2 system doped with TiCl3. Journal of Alloys and Compounds, 2015, 645, S299-S303.	2.8	12

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37	2LiBH4â€“MgH2â€“0.13TiCl4 confined in nanoporous structure of carbon aerogel scaffold for reversible hydrogen storage. Journal of Alloys and Compounds, 2014, 599, 78-86.	2.8	36
38	Hydrogen storage in Mgâ€“LiBH4 composites catalyzed by FeF3. Journal of Power Sources, 2014, 267, 799-811.	4.0	36
39	Sorption behavior of the MgH2â€“Mg2FeH6 hydride storage system synthesized by mechanical milling followed by sintering. International Journal of Hydrogen Energy, 2013, 38, 14618-14630.	3.8	37
40	Nanoconfined 2LiBH4â€“MgH2â€“TiCl3 in carbon aerogel scaffold for reversible hydrogen storage. International Journal of Hydrogen Energy, 2013, 38, 3275-3282.	3.8	49
41	Reversible hydrogen storage from 6LiBH4â€“MCl3 (MÂ=ÂCe, Gd) composites by in-situ formation of MH2. International Journal of Hydrogen Energy, 2011, 36, 563-570.	3.8	41
42	Enhanced hydrogen sorption kinetics of Mg50Niâ€“LiBH4 composite by CeCl3 addition. Journal of Power Sources, 2010, 195, 3266-3274.	4.0	13
43	Theoretical and experimental study of the intrinsic physical properties of the Mgâ€“MgH2 system. International Journal of Hydrogen Energy, 2010, 35, 6042-6047.	3.8	0
44	A novel polymorph of gadolinium tetrahydroborate produced by mechanical milling. International Journal of Hydrogen Energy, 2010, 35, 10324-10328.	3.8	12
45	Synthesis of Mg15Fe materials for hydrogen storage applying ball milling procedures. Journal of Alloys and Compounds, 2010, 495, 655-658.	2.8	2
46	Reversible hydrogen storage in metal-doped Mgâ€“LiBH4 composites. Scripta Materialia, 2009, 60, 667-670.	2.6	29
47	Hydrogen storage properties of MgxFe (x: 2, 3 and 15) compounds produced by reactive ball milling. Journal of Power Sources, 2009, 186, 185-193.	4.0	47
48	Thermodynamicâ€“kinetic characterization of the synthesized Mg2FeH6â€“MgH2 hydrides mixture. International Journal of Hydrogen Energy, 2008, 33, 3555-3560.	3.8	50
49	Thermodynamic and kinetic studies of Mgâ€“Feâ€“H after mechanical milling followed by sintering. Journal of Alloys and Compounds, 2008, 463, 134-142.	2.8	52