Claudia Zlotea

List of Publications by Year
in descending order

97 papers	4,651 citations	101384 36 h-index	102304 66 g-index
101 all docs	101 docs citations	101 times ranked	4597 citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrogen absorption/desorption reactions of the (TiVNb)85Cr15 multicomponent alloy. Journal of Alloys and Compounds, 2022, 901, 163620.	2.8	11
2	Enhanced Stability of the Metalâ€“Organic Framework MIL-101(Cr) by Embedding Pd Nanoparticles for Densification through Compression. ACS Applied Nano Materials, 2022, 5, 4196-4203.	2.4	5
3	Unveiling the Ir single atoms as selective active species for the partial hydrogenation of butadiene by <i>operando</i> XAS. Nanoscale, 2022, 14, 7641-7649.	2.8	5
4	The effect of 10Âat.% Al addition on the hydrogen storage properties of the Ti0.33V0.33Nb0.33 multi-principal element alloy. Intermetallics, 2022, 146, 107590.	1.8	18
5	Hydrogen Storage Properties of a New Ti-V-Cr-Zr-Nb High Entropy Alloy. Hydrogen, 2022, 3, 270-284.	1.7	8
6	Size-dependent hydrogen trapping in palladium nanoparticles. Journal of Materials Chemistry A, 2021, 9, 10354-10363.	5.2	15
7	Improving the hydrogen cycling properties by Mg addition in Ti-V-Zr-Nb refractory high entropy alloy. Scripta Materialia, 2021, 194, 113699.	2.6	62
8	How 10 at% Al Addition in the Ti-V-Zr-Nb High-Entropy Alloy Changes Hydrogen Sorption Properties. Molecules, 2021, 26, 2470.	1.7	23
9	Design of TiVNb-(Cr, Ni or Co) multicomponent alloys with the same valence electron concentration for hydrogen storage. Journal of Alloys and Compounds, 2021, 865, 158767.	2.8	37
10	Thermodynamic modelling of hydrogen-multicomponent alloy systems: Calculating pressure-composition-temperature diagrams. Acta Materialia, 2021, 215, 117070.	3.8	28
11	Elucidating the Effects of the Composition on Hydrogen Sorption in TiVZrNbHf-Based High-Entropy Alloys. Inorganic Chemistry, 2021, 60, 1124-1132.	1.9	49
12	Hydrogen Sorption Properties of a Novel Refractory Ti-V-Zr-Nb-Mo High Entropy Alloy. Hydrogen, 2021, 2, 399-413.	1.7	11
13	Materials for hydrogen-based energy storage â€“ past, recent progress and future outlook. Journal of Alloys and Compounds, 2020, 827, 153548.	2.8	518
14	Metal (boro-) hydrides for high energy density storage and relevant emerging technologies. International Journal of Hydrogen Energy, 2020, 45, 33687-33730.	3.8	53
15	Mesoporous Metalâ€“Organic Framework MIL-101 at High Pressure. Journal of the American Chemical Society, 2020, 142, 15012-15019.	6.6	37
16	Hydrogen storage properties of the refractory Tiâ€“Vâ€“Zrâ€“Nbâ€“Ta multi-principal element alloy. Journal of Alloys and Compounds, 2020, 835, 155376.	2.8	61
17	Metal Hydrides and Related Materials. Energy Carriers for Novel Hydrogen and Electrochemical Storage. Journal of Physical Chemistry C, 2020, 124, 7599-7607.	1.5	52
18	TiVZrNb Multi-Principal-Element Alloy: Synthesis Optimization, Structural, and Hydrogen Sorption Properties. Molecules, 2019, 24, 2799.	1.7	65

#	Article	IF	Citations
19	Hydrogen induced structure and property changes in Eu3Si4. Journal of Solid State Chemistry, 2019, 277, 37-45.	1.4	0
20	An International Laboratory Comparison Study of Volumetric and Gravimetric Hydrogen Adsorption Measurements. ChemPhysChem, 2019, 20, 1997-2009.	1.0	26
21	Interactions of Hydrogen with Pd@MOF Composites. ChemPhysChem, 2019, 20, 1282-1295.	1.0	15
22	Electrochemical oxidation of urea on nickel-rhodium nanoparticles/carbon composites. Electrochimica Acta, 2019, 297, 715-724.	2.6	45
23	Hydrogen sorption in TiZrNbHfTa high entropy alloy. Journal of Alloys and Compounds, 2019, 775, 667-674.	2.8	145
24	Investigation of the local structure of nanosized rhodium hydride. Journal of Colloid and Interface Science, 2018, 524, 427-433.	5.0	3
25	Structure and Hydrogenation Properties of a HfNbTiVZr High-Entropy Alloy. Inorganic Chemistry, 2018, 57, 2103-2110.	1.9	121
26	Absorbed hydrogen enhances the catalytic hydrogenation activity of Rh-based nanocatalysts. Catalysis Science and Technology, 2018, 8, 2707-2715.	2.1	12
27	Electrocatalytic Reduction of Nitrate and Nitrite at CuRh Nanoparticles/C Composite Electrodes. Electrocatalysis, 2018, 9, 343-351.	1.5	19
28	Role of hydrogen absorption in supported Pd nanocatalysts during CO-PROX: Insights from operando X-ray absorption spectroscopy. Applied Catalysis B: Environmental, 2018, 237, 1059-1065.	10.8	23
29	On the feasibility of the bottom-up synthesis of Mg2CoH5 nanoparticles supported on a porous carbon and their hydrogen desorption behaviour. Nano Structures Nano Objects, 2018, 16, 144-150.	1.9	8
30	Influence of nanosizing on hydrogen electrosorption properties of rhodium based nanoparticles/carbon composites. Electrochimica Acta, 2017, 228, 528-536.	2.6	9
31	Optimization of the synthesis of Pd-Au nanoalloys confined in mesoporous carbonaceous materials. Journal of Colloid and Interface Science, 2017, 505, 410-420.	5.0	9
32	In-situ Pdâ€"Pt nanoalloys growth in confined carbon spaces and their interactions with hydrogen. Nano Structures Nano Objects, 2017, 9, 1-12.	1.9	20
33	Hydrogen absorption in 1Ânm Pd clusters confined in MIL-101(Cr). Journal of Materials Chemistry A, 2017, 5, 23043-23052.	5.2	33
34	Exploring the hydrogen absorption into Pdâ€"Ir nanoalloys supported on carbon. Journal of Nanoparticle Research, 2017, 19, 1.	0.8	4
35	Hydrogen absorption properties of carbon supported Pdâ€"Ni nanoalloys. International Journal of Hydrogen Energy, 2017, 42, 1004-1011.	3.8	11
36	Magnetism as indirect tool for carbon content assessment in nickel nanoparticles. Journal of Applied Physics, 2017, 122, 213902.	1.1	2

#	Article	IF	Citations
37	Experimental Challenges in Studying Hydrogen Absorption in Ultrasmall Metal Nanoparticles. Frontiers in Energy Research, 2016, 4, .	1.2	13
38	Superior hydrogen storage in high entropy alloys. Scientific Reports, 2016, 6, 36770.	1.6	255
39	Facile and rapid one-pot microwave-assisted synthesis of Pd-Ni magnetic nanoalloys confined in mesoporous carbons. Journal of Nanoparticle Research, 2016, 18, 1.	0.8	18
40	Synthesis and stability of Pdâ€"Rh nanoalloys with fully tunable particle size and composition. Nano Structures Nano Objects, 2016, 7, 92-100.	1.9	11
41	Composition and size dependence of hydrogen interaction with carbon supported bulk-immiscible Pdâ€"Rh nanoalloys. Nanotechnology, 2016, 27, 465401.	1.3	17
42	Review of magnesium hydride-based materials: development and optimisation. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	274
43	Hydrogenation-Induced Structure and Property Changes in the Rare-Earth Metal Gallide NdGa: Evolution of a [GaH]^{2â€"} Polyanion Containing Peierls-like Gaâ€"H Chains. Inorganic Chemistry, 2016, 55, 345-352.	1.9	15
44	One-pot synthesis of tailored Pdâ€"Co nanoalloy particles confined in mesoporous carbon. Microporous and Mesoporous Materials, 2016, 223, 79-88.	2.2	14
45	Hydrogen-sorption properties of Nb4M0.9Si1.1 (MÂ=ÂCo,Ni) hydrides. International Journal of Hydrogen Energy, 2015, 40, 2692-2697.	3.8	3
46	Ultrasmall MgH₂ Nanoparticles Embedded in an Ordered Microporous Carbon Exhibiting Rapid Hydrogen Sorption Kinetics. Journal of Physical Chemistry C, 2015, 119, 18091-18098.	1.5	70
47	First Evidence of Rh Nano-Hydride Formation at Low Pressure. Nano Letters, 2015, 15, 4752-4757.	4.5	27
48	Hydrogen Storage in Pristine and d10-Block Metal-Anchored Activated Carbon Made from Local Wastes. Energies, 2015, 8, 3578-3590.	1.6	20
49	One-pot laser-assisted synthesis of porous carbon with embedded magnetic cobalt nanoparticles. Nanoscale, 2015, 7, 10111-10122.	2.8	22
50	Hydrogen Storage Properties of Nanoconfined LiBH₄â€"Mg₂NiH₄ Reactive Hydride Composites. Journal of Physical Chemistry C, 2015, 119, 5819-5826.	1.5	42
51	Synthesis of destabilized nanostructured lithium hydride via hydrogenation of lithium electrochemically inserted into graphite. International Journal of Hydrogen Energy, 2015, 40, 13936-13941.	3.8	5
52	Hydrogen sorption properties of Pdâ€"Co nanoalloys embedded into mesoporous carbons. Nanoscale, 2015, 7, 15469-15476.	2.8	19
53	Nanoalloying bulk-immiscible iridium and palladium inhibits hydride formation and promotes catalytic performances. Nanoscale, 2014, 6, 9955-9959.	2.8	40
54	Nanoconfinement of Mg₆Pd particles in porous carbon: size effects on structural and hydrogenation properties. Journal of Materials Chemistry A, 2014, 2, 18444-18453.	5.2	13

#	Article	IF	Citations
55	Bottom-up preparation of MgH₂ nanoparticles with enhanced cycle life stability during electrochemical conversion in Li-ion batteries. Nanoscale, 2014, 6, 14459-14466.	2.8	72
56	Controlled synthesis of NiCo nanoalloys embedded in ordered porous carbon by a novel soft-template strategy. Carbon, 2014, 67, 260-272.	5.4	44
57	Synthesis of Mg2Cu nanoparticles on carbon supports with enhanced hydrogen sorption kinetics. Journal of Materials Chemistry A, 2013, 1, 9983.	5.2	21
58	Role of nanoconfinement on hydrogen sorption properties of metal nanoparticles hybrids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 439, 117-130.	2.3	78
59	Hydrogen storage in hybrid nanostructured carbon/palladium materials: Influence of particle size and surface chemistry. International Journal of Hydrogen Energy, 2013, 38, 952-965.	3.8	87
60	Direct assessment from cyclic voltammetry of size effect on the hydrogen sorption properties of Pd nanoparticle/carbon hybrids. Journal of Electroanalytical Chemistry, 2013, 706, 33-39.	1.9	30
61	Tunable synthesis of (Mgâ€“Ni)-based hydrides nanoconfined in templated carbon studied by in situ synchrotron diffraction. Nano Energy, 2013, 2, 12-20.	8.2	61
62	A Round Robin Test exercise on hydrogen absorption/desorption properties of a magnesium hydride based material. International Journal of Hydrogen Energy, 2013, 38, 6704-6717.	3.8	41
63	Nanoconfined light metal hydrides for reversible hydrogen storage. MRS Bulletin, 2013, 38, 488-494.	1.7	105
64	Photochemically-Driven Methods for the <i>In Situ</i> and Site-Specific Fabrication of Monolithic-Based Electrochromatographic Microsystems. Key Engineering Materials, 2013, 543, 227-230.	0.4	0
65	Structure and hydrogen storage properties of the hexagonal Laves phase Sc(Al1âˆ’xNix)2. Journal of Solid State Chemistry, 2012, 196, 132-137.	1.4	7
66	Hydrogen sorption properties of Pd nanoparticles dispersed on graphitic carbon studied with a cavity microelectrode. Electrochimica Acta, 2012, 83, 133-139.	2.6	15
67	Activated carbons doped with Pd nanoparticles for hydrogen storage. International Journal of Hydrogen Energy, 2012, 37, 5072-5080.	3.8	73
68	Understanding the mechanism of hydrogen uptake at low pressure in carbon/palladium nanostructured composites. Journal of Materials Chemistry, 2011, 21, 17765.	6.7	50
69	Synthesis of small metallic Mg-based nanoparticles confined in porous carbon materials for hydrogen sorption. Faraday Discussions, 2011, 151, 117.	1.6	54
70	Effect of NH2 and CF3 functionalization on the hydrogen sorption properties of MOFs. Dalton Transactions, 2011, 40, 4879.	1.6	257
71	Optimization of activated carbons for hydrogen storage. International Journal of Hydrogen Energy, 2011, 36, 11746-11751.	3.8	72
72	Activated carbons with appropriate micropore size distribution for hydrogen adsorption. International Journal of Hydrogen Energy, 2011, 36, 5431-5434.	3.8	54

#	Article	IF	Citations
73	Fully reversible hydrogen absorption and desorption reactions with Sc(Al1âˆ’xMgx), x=0.0, 0.15, 0.20. Journal of Solid State Chemistry, 2011, 184, 104-108.	1.4	6
74	Experimental evidence of an upper limit for hydrogen storage at 77 K on activated carbons. Carbon, 2010, 48, 1902-1911.	5.4	79
75	Pd Nanoparticles Embedded into a Metal-Organic Framework: Synthesis, Structural Characteristics, and Hydrogen Sorption Properties. Journal of the American Chemical Society, 2010, 132, 2991-2997.	6.6	320
76	Size-Dependent Hydrogen Sorption in Ultrasmall Pd Clusters Embedded in a Mesoporous Carbon Template. Journal of the American Chemical Society, 2010, 132, 7720-7729.	6.6	89
77	Hydrogen sorption properties of a Mgâ€“Yâ€“Ti alloy. Journal of Alloys and Compounds, 2010, 489, 375-378.	2.8	14
78	A Round Robin characterisation of the hydrogen sorption properties of a carbon based material. International Journal of Hydrogen Energy, 2009, 34, 3044-3057.	3.8	73
79	YMgGa as a hydrogen storage compound. Journal of Solid State Chemistry, 2009, 182, 1833-1837.	1.4	4
80	Occurrence of Uncommon Infinite Chains Consisting of Edge-Sharing Octahedra in a Porous Metal Organic Framework-Type Aluminum Pyromellitate Al₄(OH)₈[C₁₀O₈H₂] (MIL-120): Synthesis, Structure, and Gas Sorption Properties. Chemistry of Materials, 2009, 21, 5783-5791.	3.2	102
81	Hydrogen desorption studies of the Mg24Y5â€“H system: Formation of Mg tubes, kinetics and cycling effects. Acta Materialia, 2008, 56, 2421-2428.	3.8	49
82	Structure of Feâ€“Co/Pt(001) superlattices: a realization of tetragonal Feâ€“Co alloys. Journal of Physics Condensed Matter, 2007, 19, 016008.	0.7	13
83	Formation of one-dimensional MgH2 nano-structures by hydrogen induced disproportionation. Journal of Alloys and Compounds, 2006, 426, 357-362.	2.8	36
84	Microstructural modifications induced by hydrogen absorption in Mg5Ga2 and Mg6Pd. Acta Materialia, 2006, 54, 5559-5564.	3.8	13
85	Perpendicular Magnetocrystalline Anisotropy in Tetragonally Distorted Fe-Co Alloys. Physical Review Letters, 2006, 96, 037205.	2.9	118
86	Investigation of the metamagnetic transition in Y2Co7H6. Nuclear Instruments & Methods in Physics Research B, 2005, 238, 229-232.	0.6	1
87	Growth and hydrogen uptake of Mgâ€“Y thin films. Journal of Applied Physics, 2005, 97, 104903.	1.1	18
88	Hydrogen uptake and optical properties of sputtered Mgâ€“Ni thin films. Journal of Physics Condensed Matter, 2004, 16, 7649-7662.	0.7	21
89	Magnetic properties of the hexagonal DyCo4Al compound. Physica B: Condensed Matter, 2004, 350, E155-E158.	1.3	7
90	Effects of the Substitution of Iron for Cobalt on the Crystal and Magnetic Properties of PrCo4-xFexM (M: Al and Ga).. ChemInform, 2003, 34, no.	0.1	0

#	Article	IF	Citations
91	Effects of the substitution of iron for cobalt on the crystal and magnetic properties of PrCo4â^'xFexM (M=Al and Ga). Journal of Alloys and Compounds, 2003, 348, 43-51.	2.8	4
92	Structural and magnetic properties of hexagonal DyCo4M compounds (M = Al,Ga). Journal of Physics Condensed Matter, 2003, 15, 8327-8337.	0.7	18
93	Neutron diffraction and magnetic investigations of the TbCo4M compounds (M Â Al and Ga). Journal of Physics Condensed Matter, 2002, 14, 10211-10220.	0.7	14
94	Determination of the crystal and magnetic structures of Rn+1Co3n+5B2n (n=1,â€,2,â€,andâ€,3; R=Pr, Nd, and) Tj ETQq0 0 0 rgBT /Over	1.1	32
95	Neutron powder diffraction and magnetic phase diagram of RCo4Ga compounds (R=Y and Pr). Journal of Alloys and Compounds, 2002, 346, 29-37.	2.8	28
96	Structural and magnetic properties of RCo4Al compounds (R=Y, Pr). Journal of Magnetism and Magnetic Materials, 2002, 242-245, 832-835.	1.0	9
97	Crystal and magnetic structure of hexagonal RCo4Al intermetallic compounds (R=Y and Pr). Journal of Magnetism and Magnetic Materials, 2002, 253, 118-129.	1.0	21