

# Michel J Latroche

## List of Publications by Citations

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293  
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11,498  
ext. citations

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L-index

#	Paper	IF	Citations
280	Hydrogen storage in the giant-pore metal-organic frameworks MIL-100 and MIL-101. <i>Angewandte Chemie - International Edition</i> , <b>2006</b> , 45, 8227-31	16.4	681
279	Hydrogen adsorption in the nanoporous metal-benzenedicarboxylate M(OH)(O <sub>2</sub> C-C <sub>6</sub> H <sub>4</sub> -CO <sub>2</sub> ) (M = Al <sup>3+</sup> , Cr <sup>3+</sup> ), MIL-53. <i>Chemical Communications</i> , <b>2003</b> , 2976-7	5.8	629
278	MIL-96, a porous aluminum trimesate 3D structure constructed from a hexagonal network of 18-membered rings and μ <sub>3</sub> -oxo-centered trinuclear units. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 10223-30	16.4	337
277	Mechanochemical synthesis of hydrogen storage materials. <i>Progress in Materials Science</i> , <b>2013</b> , 58, 30-75	42.2	294
276	Pd nanoparticles embedded into a metal-organic framework: synthesis, structural characteristics, and hydrogen sorption properties. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 2991-7	16.4	290
275	Magnesium based materials for hydrogen based energy storage: Past, present and future. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 7809-7859	6.7	264
274	Materials for hydrogen-based energy storage [past, recent progress and future outlook. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 827, 153548	5.7	264
273	The Kagome topology of the gallium and indium metal-organic framework types with a MIL-68 structure: synthesis, XRD, solid-state NMR characterizations, and hydrogen adsorption. <i>Inorganic Chemistry</i> , <b>2008</b> , 47, 11892-901	5.1	220
272	Effect of NH <sub>2</sub> and CF <sub>3</sub> functionalization on the hydrogen sorption properties of MOFs. <i>Dalton Transactions</i> , <b>2011</b> , 40, 4879-81	4.3	218
271	Synthesis of MIL-102, a chromium carboxylate metal-organic framework, with gas sorption analysis. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 14889-96	16.4	213
270	Review of magnesium hydride-based materials: development and optimisation. <i>Applied Physics A: Materials Science and Processing</i> , <b>2016</b> , 122, 1	2.6	212
269	Superconductivity at 12 K in Y?Ni?B system. <i>Solid State Communications</i> , <b>1993</b> , 87, 413-416	1.6	165
268	Intermetallic compounds as negative electrodes of Ni/MH batteries. <i>Applied Physics A: Materials Science and Processing</i> , <b>2001</b> , 72, 225-238	2.6	150
267	Mg-based compounds for hydrogen and energy storage. <i>Applied Physics A: Materials Science and Processing</i> , <b>2016</b> , 122, 1	2.6	121
266	Hydrogen storage properties of Pd nanoparticle/carbon template composites. <i>Carbon</i> , <b>2008</b> , 46, 206-214	10.4	116
265	New hollandite oxides: TiO <sub>2</sub> (H) and K <sub>0.06</sub> TiO <sub>2</sub> . <i>Journal of Solid State Chemistry</i> , <b>1989</b> , 81, 78-82	3.3	115
264	Hydrogen Storage in the Giant-Pore Metal-Organic Frameworks MIL-100 and MIL-101. <i>Angewandte Chemie</i> , <b>2006</b> , 118, 8407-8411	3.6	113

263	Synthesis, structural and hydrogenation properties of Mg-rich MgH <sub>2</sub> -TiH <sub>2</sub> nanocomposites prepared by reactive ball milling under hydrogen gas. <i>Physical Chemistry Chemical Physics</i> , <b>2012</b> , 14, 1200-11	3.6	105
262	Occurrence of Uncommon Infinite Chains Consisting of Edge-Sharing Octahedra in a Porous Metal Organic Framework-Type Aluminum Pyromellitate Al <sub>4</sub> (OH) <sub>8</sub> [C <sub>10</sub> O <sub>8</sub> H <sub>2</sub> ] (MIL-120): Synthesis, Structure, and Gas Sorption Properties. <i>Chemistry of Materials</i> , <b>2009</b> , 21, 5783-5791	9.6	90
261	Elaboration and characterization of magnesium-substituted La <sub>5</sub> Ni <sub>19</sub> hydride forming alloys as active materials for negative electrode in Ni-MH battery. <i>Electrochimica Acta</i> , <b>2009</b> , 54, 1710-1714	6.7	88
260	Structural and thermodynamic properties of metallic hydrides used for energy storage?. <i>Journal of Physics and Chemistry of Solids</i> , <b>2004</b> , 65, 517-522	3.9	85
259	Hydrogen storage in hybrid nanostructured carbon/palladium materials: Influence of particle size and surface chemistry. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 952-965	6.7	83
258	Size-dependent hydrogen sorption in ultrasmall Pd clusters embedded in a mesoporous carbon template. <i>Journal of the American Chemical Society</i> , <b>2010</b> , 132, 7720-9	16.4	83
257	Hydrogen cycling induced degradation in LaNi <sub>5</sub> -type materials. <i>Journal of Alloys and Compounds</i> , <b>2002</b> , 330-332, 208-214	5.7	80
256	Exploits, advances and challenges benefiting beyond Li-ion battery technologies. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 817, 153261	5.7	79
255	Simulation and experimental validation of a hydrogen storage tank with metal hydrides. <i>International Journal of Hydrogen Energy</i> , <b>2008</b> , 33, 98-104	6.7	77
254	Role of nanoconfinement on hydrogen sorption properties of metal nanoparticles hybrids. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2013</b> , 439, 117-130	5.1	72
253	Highlighting of a Single Reaction Path during Reactive Ball Milling of Mg and TM by Quantitative H <sub>2</sub> Gas Sorption Analysis To Form Ternary Complex Hydrides (TM = Fe, Co, Ni). <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 4971-4979	3.8	71
252	Carboxymethylcellulose and carboxymethylcellulose-formate as binders in MgH <sub>2</sub> /carbon composites negative electrode for lithium-ion batteries. <i>Journal of Power Sources</i> , <b>2011</b> , 196, 2854-2857	8.9	68
251	Experimental evidence of an upper limit for hydrogen storage at 77 K on activated carbons. <i>Carbon</i> , <b>2010</b> , 48, 1902-1911	10.4	68
250	Influence of crystallinity on the structural and hydrogenation properties of Mg <sub>2</sub> X phases (X=Ni, Si, Ge, Sn). <i>Intermetallics</i> , <b>2006</b> , 14, 163-169	3.5	67
249	Anisotropic diffraction peak broadening and dislocation substructure in hydrogen-cycled LaNi <sub>5</sub> and substitutional derivatives. <i>Journal of Applied Crystallography</i> , <b>2000</b> , 33, 997-1005	3.8	66
248	Competing interactions in the heavy-electron antiferromagnets CeM <sub>2</sub> Sn <sub>2</sub> (M=Ni, Ir, Cu, Rh, Pd, and Pt). <i>Physical Review B</i> , <b>1991</b> , 43, 13130-13136	3.3	65
247	Bottom-up preparation of MgH <sub>2</sub> nanoparticles with enhanced cycle life stability during electrochemical conversion in Li-ion batteries. <i>Nanoscale</i> , <b>2014</b> , 6, 14459-66	7.7	62
246	Activated carbons doped with Pd nanoparticles for hydrogen storage. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 5072-5080	6.7	62

- 245 Optimization of activated carbons for hydrogen storage. *International Journal of Hydrogen Energy*, **2011**, 36, 11746-11751 6.7 62
- 244 Ultrasmall MgH<sub>2</sub> Nanoparticles Embedded in an Ordered Microporous Carbon Exhibiting Rapid Hydrogen Sorption Kinetics. *Journal of Physical Chemistry C*, **2015**, 119, 18091-18098 3.8 61
- 243 Structural Stability of ABy Phases in the (La,Mg)<sub>n</sub>Ni System Obtained by Density Functional Theory Calculations. *Journal of Physical Chemistry C*, **2011**, 115, 25470-25478 3.8 61
- 242 Hydrogen absorption properties of several intermetallic compounds of the ZrNi system. *Journal of Alloys and Compounds*, **1995**, 231, 494-497 5.7 61
- 241 Crystallographic study of LaNi<sub>5-x</sub>Sn<sub>x</sub> (0.2 ≤ x ≤ 0.5) compounds and their hydrides. *Journal of Alloys and Compounds*, **1999**, 293-295, 124-129 5.7 60
- 240 Improvement of the electrochemical activity of Zr<sub>2</sub>Ni<sub>2</sub>Cr Laves phase hydride electrodes by secondary phase precipitation. *Journal of Alloys and Compounds*, **1996**, 240, 219-228 5.7 60
- 239 Reactivity of TiH<sub>2</sub> hydride with lithium ion: Evidence for a new conversion mechanism. *International Journal of Hydrogen Energy*, **2012**, 37, 7831-7835 6.7 58
- 238 Tunable synthesis of (Mg<sub>n</sub>Ni)-based hydrides nanoconfined in templated carbon studied by in situ synchrotron diffraction. *Nano Energy*, **2013**, 2, 12-20 17.1 57
- 237 Influence of [Mo<sub>6</sub>Br<sub>8</sub>F<sub>6</sub>]<sub>2</sub>- cluster unit inclusion within the mesoporous solid MIL-101 on hydrogen storage performance. *Langmuir*, **2010**, 26, 11283-90 4 56
- 236 Hydrogen induced phase transitions in YMn<sub>2</sub>. *Journal of Alloys and Compounds*, **1998**, 274, 29-37 5.7 54
- 235 Structural Instability in R<sub>1-x</sub>Ni<sub>2</sub> Compounds and Their Hydrides (R = Y, Rare Earth)\*. *Zeitschrift Fur Physikalische Chemie*, **1993**, 179, 261-268 3.1 54
- 234 Structural and electrochemical properties of amorphous rich Mg Ni<sub>100</sub> nanomaterial obtained by mechanical alloying. *Journal of Alloys and Compounds*, **2003**, 356-357, 557-561 5.7 53
- 233 Reactivity of complex hydrides Mg<sub>2</sub>FeH<sub>6</sub>, Mg<sub>2</sub>CoH<sub>5</sub> and Mg<sub>2</sub>NiH<sub>4</sub> with lithium ion: Far from equilibrium electrochemically driven conversion reactions. *International Journal of Hydrogen Energy*, **2013**, 38, 4798-4808 6.7 52
- 232 Hydrogen spillover measurements of unbridged and bridged metal-organic frameworks--revisited. *Physical Chemistry Chemical Physics*, **2010**, 12, 10457-9 3.6 51
- 231 Activated carbons with appropriate micropore size distribution for hydrogen adsorption. *International Journal of Hydrogen Energy*, **2011**, 36, 5431-5434 6.7 51
- 230 Structural studies of LaNi<sub>4</sub>CoD<sub>6.11</sub> and LaNi<sub>3.55</sub>Mn<sub>0.4</sub>Al<sub>0.3</sub>Co<sub>0.75</sub>D<sub>5.57</sub> by means of neutron powder diffraction. *Journal of Alloys and Compounds*, **1995**, 218, 64-72 5.7 48
- 229 Structure determination of Y<sub>0.95</sub>Ni<sub>2</sub> by X-ray powder diffraction. *Journal of the Less Common Metals*, **1990**, 161, L27-L31 48
- 228 Synthesis of small metallic Mg-based nanoparticles confined in porous carbon materials for hydrogen sorption. *Faraday Discussions*, **2011**, 151, 117-31; discussion 199-212 3.6 47

227	Temperature- and pressure-induced structural transitions in rare-earth-deficient (R = Y, Sm, Gd, Tb) Laves phases. <i>Journal of Physics Condensed Matter</i> , <b>1996</b> , 8, 8351-8361	1.8	47
226	Understanding the mechanism of hydrogen uptake at low pressure in carbon/palladium nanostructured composites. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 17765		46
225	The Influence of Mn on the Crystallography and Electrochemistry of Nonstoichiometric AB <sub>5</sub> -Type Hydride-Forming Compounds. <i>Journal of the Electrochemical Society</i> , <b>1999</b> , 146, 3181-3189	3.9	45
224	Site Occupancies in the Battery Electrode Material LaNi <sub>3.55</sub> Mn <sub>0.4</sub> Al <sub>0.3</sub> Co <sub>0.75</sub> as Determined by Multiwavelength Synchrotron Powder Diffraction. <i>Journal of Applied Crystallography</i> , <b>1998</b> , 31, 327-332	3.8	44
223	Structural and chemical analyses of the new ternary La <sub>5</sub> MgNi <sub>24</sub> phase synthesized by Spark Plasma Sintering and used as negative electrode material for Ni-MH batteries. <i>International Journal of Hydrogen Energy</i> , <b>2012</b> , 37, 5225-5233	6.7	43
222	Nanostructured Si/Sn/Ni/C composite as negative electrode for Li-ion batteries. <i>Journal of Power Sources</i> , <b>2011</b> , 196, 4762-4768	8.9	43
221	Metallic Hydrides II: Materials for Electrochemical Storage. <i>MRS Bulletin</i> , <b>2002</b> , 27, 694-698	3.2	43
220	Heavy-electron antiferromagnetism in CePt <sub>2</sub> Sn <sub>2</sub> . <i>Physical Review Letters</i> , <b>1991</b> , 66, 3289-3292	7.4	43
219	Mechanochemistry of Metal Hydrides: Recent Advances. <i>Materials</i> , <b>2019</b> , 12,	3.5	41
218	Structural and thermodynamic studies of some hydride forming RM <sub>3</sub> -type compounds (R=lanthanide, M=transition metal). <i>Journal of Alloys and Compounds</i> , <b>2003</b> , 356-357, 461-468	5.7	41
217	Metal hydrides used as negative electrode materials for Li-ion batteries. <i>Applied Physics A: Materials Science and Processing</i> , <b>2016</b> , 122, 1	2.6	40
216	Li-Driven Electrochemical Conversion Reaction of AlH <sub>3</sub> , LiAlH <sub>4</sub> , and NaAlH <sub>4</sub> . <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 4666-4674	3.8	40
215	Intrinsic behaviour analysis of substituted LaNi <sub>5</sub> -type electrodes by means of in-situ neutron diffraction. <i>Journal of Alloys and Compounds</i> , <b>1995</b> , 231, 537-545	5.7	40
214	Controlled synthesis of NiCo nanoalloys embedded in ordered porous carbon by a novel soft-template strategy. <i>Carbon</i> , <b>2014</b> , 67, 260-272	10.4	39
213	Structural Properties and Reversible Deuterium Loading of MgD <sub>2</sub> /TiD <sub>2</sub> Nanocomposites. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 18851-18862	3.8	39
212	An all-solid-state metal hydride Sulfur lithium-ion battery. <i>Journal of Power Sources</i> , <b>2017</b> , 357, 56-60	8.9	38
211	A Round Robin Test exercise on hydrogen absorption/desorption properties of a magnesium hydride based material. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 6704-6717	6.7	38
210	In situ synthesis and hydrogen storage properties of PdNi alloy nanoparticles in an ordered mesoporous carbon template. <i>Microporous and Mesoporous Materials</i> , <b>2009</b> , 117, 511-514	5.3	38

209	Elaboration, Structures, and Phase Transitions for YFe <sub>2</sub> D <sub>x</sub> Compounds (x=1.3, 1.75, 1.9, 2.6) Studied by Neutron Diffraction. <i>Journal of Solid State Chemistry</i> , <b>1999</b> , 142, 120-129	3.3	38
208	Full-cell hydride-based solid-state Li batteries for energy storage. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 7875-7887	6.7	37
207	Metal hydrides as negative electrode materials for NiMH batteries. <i>Applied Physics A: Materials Science and Processing</i> , <b>2016</b> , 122, 1	2.6	37
206	Hydrogen Storage Properties of Nanoconfined LiBH <sub>4</sub> /Mg <sub>2</sub> NiH <sub>4</sub> Reactive Hydride Composites. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 5819-5826	3.8	36
205	Influence of the addition of vanadium on the hydrogenation properties of the compounds TiFe <sub>0.9</sub> V <sub>x</sub> and TiFe <sub>0.8</sub> Mn <sub>0.1</sub> V <sub>x</sub> (x=0, 0.05 and 0.1). <i>Journal of Alloys and Compounds</i> , <b>2011</b> , 509, 5562-5568	5.7	36
204	XAS investigations on nanocrystalline Mg <sub>2</sub> FeH <sub>6</sub> used as a negative electrode of Li-ion batteries. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 4706	1.3	35
203	Hydrogen-induced phase transitions in RNi <sub>3</sub> and RY <sub>2</sub> Ni <sub>9</sub> (R = La, Ce) compounds. <i>Journal of Power Sources</i> , <b>2007</b> , 172, 446-450	8.9	35
202	Hydrogenation properties and crystal structure of the single BCC (Ti <sub>0.355</sub> V <sub>0.645</sub> ) <sub>100</sub> M <sub>x</sub> alloys with M=Mn, Fe, Co, Ni (x=7, 14 and 21). <i>Journal of Alloys and Compounds</i> , <b>2007</b> , 439, 294-301	5.7	35
201	Nanoalloying bulk-immiscible iridium and palladium inhibits hydride formation and promotes catalytic performances. <i>Nanoscale</i> , <b>2014</b> , 6, 9955-9	7.7	34
200	Homogeneity range and order-disorder transitions in R <sub>1-x</sub> Ni <sub>2</sub> Laves phase compounds. <i>Intermetallics</i> , <b>2006</b> , 14, 483-490	3.5	34
199	Crystal structure of Mg <sub>0.65</sub> Sc <sub>0.35</sub> D <sub>x</sub> deuterides studied by X-ray and neutron powder diffraction. <i>Journal of Solid State Chemistry</i> , <b>2006</b> , 179, 3024-3032	3.3	34
198	Relevance of hydrogen storage properties of ANi <sub>3</sub> intermetallics (A = La, Ce, Y) to the ANi <sub>2</sub> subunits in their crystal structures. <i>Acta Materialia</i> , <b>2008</b> , 56, 5388-5394	8.4	33
197	Electrochemical performances of ZrM <sub>2</sub> (M=V, Cr, Mn, Ni) Laves phases and the relation to microstructures and thermodynamical properties. <i>Journal of Alloys and Compounds</i> , <b>1997</b> , 253-254, 564-569	5.7	32
196	Identification of a new pseudo-binary hydroxide during calendar corrosion of (La, Mg) <sub>2</sub> Ni <sub>7</sub> -type hydrogen storage alloys for Nickel-Metal Hydride batteries. <i>Journal of Power Sources</i> , <b>2014</b> , 266, 162-169	8.9	31
195	A Structural Study of the Homogeneity Domain of LaNi <sub>5</sub> . <i>Journal of Solid State Chemistry</i> , <b>2002</b> , 166, 1-6	3.3	31
194	Influence of the martensitic transformation on the hydrogenation properties of Ti <sub>50-x</sub> Zr <sub>x</sub> Ni <sub>50</sub> alloys. <i>Journal of Alloys and Compounds</i> , <b>2002</b> , 330-332, 250-255	5.7	31
193	Neutron diffraction study of YMn <sub>2</sub> D <sub>x</sub> deuterides (1 ≤ x ≤ 3.4). <i>Journal of Alloys and Compounds</i> , <b>1995</b> , 231, 99-103	5.7	31
192	Syntheses and structures of K <sub>3</sub> MO <sub>4</sub> (M = niobium, tantalum; Q = sulfur, selenium). <i>Inorganic Chemistry</i> , <b>1990</b> , 29, 1503-1505	5.1	31

191	Improvement of the hydrogen storage properties of TiCrVFe BCC alloy by Ce addition. <i>Journal of Alloys and Compounds</i> , <b>2009</b> , 476, 403-407	5.7	30
190	Structural properties of two deuterides LaY <sub>2</sub> Ni <sub>9</sub> D <sub>12.8</sub> and CeY <sub>2</sub> Ni <sub>9</sub> D <sub>7.7</sub> determined by neutron powder diffraction and X-ray absorption spectroscopy. <i>Journal of Solid State Chemistry</i> , <b>2004</b> , 177, 2542-2549	3.3	30
189	An electrochemical study of new La <sub>1-x</sub> Ce <sub>x</sub> Y <sub>2</sub> Ni <sub>9</sub> (0 ≤ x ≤ 1) hydrogen storage alloys. <i>Electrochimica Acta</i> , <b>2001</b> , 46, 2385-2393	6.7	30
188	Crystal Structure of Nonstoichiometric Copper-Substituted La(Ni <sub>1-x</sub> Cu <sub>x</sub> ) <sub>9</sub> Compounds Studied by Neutron and Synchrotron Anomalous Powder Diffraction. <i>Journal of Solid State Chemistry</i> , <b>1999</b> , 146, 313-321	3.3	30
187	Hydrogenation of LaNi <sub>5</sub> studied by in situ synchrotron powder diffraction. <i>Acta Materialia</i> , <b>2006</b> , 54, 713-719	8.4	29
186	Optimization of TiH <sub>2</sub> content for fast and efficient hydrogen cycling of MgH <sub>2</sub> -TiH <sub>2</sub> nanocomposites. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 16774-16781	6.7	29
185	Zirconium-Nickel, Zr <sub>7</sub> Ni <sub>10</sub> : Space Group Revision for the Stoichiometric Phase. <i>Acta Crystallographica Section C: Crystal Structure Communications</i> , <b>1997</b> , 53, 1536-1538		28
184	Influence of stoichiometry and composition on the structural and electrochemical properties of AB <sub>5+y</sub> -based alloys used as negative electrode materials in NiMH batteries. <i>Journal of Alloys and Compounds</i> , <b>2002</b> , 330-332, 787-791	5.7	28
183	Metal (boro-) hydrides for high energy density storage and relevant emerging technologies. <i>International Journal of Hydrogen Energy</i> , <b>2020</b> , 45, 33687-33730	6.7	28
182	Mechanistic and Kinetic Study of the Electrochemical Charge and Discharge of La <sub>2</sub> MgNi <sub>9</sub> by in Situ Powder Neutron Diffraction. <i>Journal of Physical Chemistry C</i> , <b>2014</b> , 118, 12162-12169	3.8	27
181	Effects of lanthanum or cerium on the equilibrium of ZrNi <sub>1.2</sub> Mn <sub>0.6</sub> V <sub>0.2</sub> Cr <sub>0.1</sub> and its related hydrogenation properties. <i>Journal of Alloys and Compounds</i> , <b>1997</b> , 248, 215-219	5.7	27
180	Temperature dependence study of YMn <sub>2</sub> D <sub>4.5</sub> by means of neutron powder diffraction. <i>Journal of Alloys and Compounds</i> , <b>1998</b> , 274, 59-64	5.7	27
179	New magnetic phenomena in TbNi <sub>2</sub> . <i>Journal of Physics Condensed Matter</i> , <b>1999</b> , 11, 7893-7905	1.8	27
178	Hydrogenation properties of FeTiV bcc alloys. <i>Journal of Alloys and Compounds</i> , <b>2011</b> , 509, 372-379	5.7	26
177	Nanostructures of Mg <sub>0.65</sub> Ti <sub>0.35</sub> D <sub>x</sub> studied with x-ray diffraction, neutron diffraction, and magic-angle-spinning H <sub>2</sub> NMR spectroscopy. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	26
176	Influence of cobalt content in MmNi <sub>4.3-x</sub> Mn <sub>0.3</sub> Al <sub>0.4</sub> Cox alloy (x=0.36 and 0.69) on its electrochemical behaviour studied by in situ neutron diffraction. <i>Journal of Alloys and Compounds</i> , <b>1999</b> , 293-295, 637-642	5.7	26
175	X-ray diffraction and extended X-ray absorption fine-structure study of RMn <sub>2</sub> hydrides (R = Y, Gd or Dy). <i>Journal of Alloys and Compounds</i> , <b>1996</b> , 232, 107-118	5.7	25
174	Substitutional effects in TiFe for hydrogen storage: a comprehensive review. <i>Materials Advances</i> , <b>2021</b> , 2, 2524-2560	3.3	25

- 173 Hydrides of early transition metals as catalysts and grain growth inhibitors for enhanced reversible hydrogen storage in nanostructured magnesium. *Journal of Materials Chemistry A*, **2019**, 7, 23064-23075<sup>13</sup> 24
- 172 First Evidence of Rh Nano-Hydride Formation at Low Pressure. *Nano Letters*, **2015**, 15, 4752-7 11.5 24
- 171 Elaboration and Characterization of New Pseudo-Binary Hydride-Forming Phases Pr<sub>1.5</sub>Mg<sub>0.5</sub>Ni<sub>7</sub> and Pr<sub>3.75</sub>Mg<sub>1.25</sub>Ni<sub>19</sub>: A Comparison to the Binary Pr<sub>2</sub>Ni<sub>7</sub> and Pr<sub>5</sub>Ni<sub>19</sub> Ones. *Journal of Physical Chemistry C*, **2011**, 115, 19437-19444 3.8 24
- 170 New ternary intermetallic compounds belonging to the R<sub>2</sub>Ni (R=La, Ce) system as negative electrodes for NiMH batteries. *Journal of Alloys and Compounds*, **2002**, 330-332, 782-786 5.7 24
- 169 In situ neutron diffraction study of the kinetics of metallic hydride electrodes. *Journal of Alloys and Compounds*, **2002**, 334, 267-276 5.7 24
- 168 Structural study of YMn<sub>2</sub> hydrides. *Journal of Alloys and Compounds*, **1995**, 225, 436-439 5.7 24
- 167 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 4.1 23
- 166 Multiplateau isotherms related to a multiphase behaviour in the YFe<sub>2</sub>-D<sub>2</sub> system. *Journal of Alloys and Compounds*, **1997**, 255, 195-202 5.7 23
- 165 Activation behaviour of mechanically Ni-coated Zr-based laves phase hydride electrode. *Journal of Alloys and Compounds*, **1997**, 257, 302-305 5.7 23
- 164 Crystallographic Study of YFe<sub>2</sub>D<sub>3.5</sub> by X-Ray and Neutron Powder Diffraction. *Journal of Solid State Chemistry*, **1997**, 133, 568-571 3.3 23
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49	Structural and hydrogen storage properties of LaCaMgNi <sub>9</sub> -type alloy obtained by mechanical alloying. <i>Materials for Renewable and Sustainable Energy</i> , <b>2015</b> , 4, 1	4.7	4
48	Synthesis of destabilized nanostructured lithium hydride via hydrogenation of lithium electrochemically inserted into graphite. <i>International Journal of Hydrogen Energy</i> , <b>2015</b> , 40, 13936-13941	6.7	4

47	Investigation of H Sorption and Corrosion Properties of Sm <sub>2</sub> Mn <sub>x</sub> Ni <sub>7-x</sub> (0 ≤ x ≤ 7) Alloys. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 13, 3470	3.1	4
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45	Muon spin relaxation in deuterides. <i>Journal of Physics Condensed Matter</i> , <b>1996</b> , 8, 4603-4615	1.8	4
44	Influence of the Ti/Zr ratio and the synthesis route on hydrogen absorbing properties of (Ti <sub>1-x</sub> Zr <sub>x</sub> )Mn <sub>1.5</sub> V <sub>0.5</sub> alloys. <i>Journal of Physics and Chemistry of Solids</i> , <b>2006</b> , 67, 1281-1285	3.9	4
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37	The use of aluminium and others p elements (gallium, indium) for the generation of MOF-type materials. <i>Studies in Surface Science and Catalysis</i> , <b>2008</b> , 447-450	1.8	3
36	Electronic and crystallographic properties of the system CeY <sub>2</sub> Ni <sub>9</sub> D <sub>x</sub> (x=0, 1) measured by X-ray absorption spectroscopy. <i>Journal of Alloys and Compounds</i> , <b>2005</b> , 404-406, 60-63	5.7	3
35	Magnetic properties of RY <sub>2</sub> Ni <sub>9</sub> compounds and their hydrides (R=La, Ce). <i>Journal of Solid State Chemistry</i> , <b>2006</b> , 179, 3224-3228	3.3	3
34	Synthesis of Single-Phase YMn <sub>2</sub> D <sub>2</sub> Studied by in situ Neutron Diffraction. <i>Journal of Solid State Chemistry</i> , <b>2000</b> , 150, 183-187	3.3	3
33	Superconductivity at 12 K in Y-Ni-B system. <i>Physica B: Condensed Matter</i> , <b>1994</b> , 194-196, 1985-1986	2.8	3
32	Cs <sub>x</sub> TiO <sub>2</sub> bronzes with hollandite structure: Cationic ordering and physical properties. <i>Materials Research Bulletin</i> , <b>1990</b> , 25, 139-148	5.1	3
31	Hydrogen Storage Properties of Metallic Hydrides. <i>European Journal of Control</i> , <b>2005</b> , 30, 471-482	2.5	3
30	Correlations between stacked structures and weak itinerant magnetic properties of La Y Ni compounds. <i>Journal of Physics Condensed Matter</i> , <b>2020</b> , 32, 415804	1.8	3

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28	Mechanochemical synthesis in the Li-Mg-N-D system under deuterium gas: a neutron diffraction study. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 23944-53	3.6	3
27	Metallic and complex hydride-based electrochemical storage of energy. <i>Progress in Energy</i> ,	7.7	3
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