Walter JosÃ© Botta

List of Publications by Year
in descending order

299	7,002	81743	123241
papers	citations	39 h-index	61 g-index

305	305	305	4094
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Excess free volume in metallic glasses measured by X-ray diffraction. Acta Materialia, 2005, 53, 1611-1619.	3.8	344
2	Nanomaterials by severe plastic deformation: review of historical developments and recent advances. Materials Research Letters, 2022, 10, 163-256.	4.1	215
3	Improvement in H-sorption kinetics of MgH powders by using Fe nanoparticles generated by reactive FeF addition. Scripta Materialia, 2005, 52, 719-724.	2.6	174
4	Shear delocalization and crack blunting of a metallic glass containing nanoparticles: In situ deformation in TEM analysis. Scripta Materialia, 2006, 54, 1829-1834.	2.6	112
5	Hydrogen-induced phase transition of MgZrTiFe0.5Co0.5Ni0.5 high entropy alloy. International Journal of Hydrogen Energy, 2018, 43, 1702-1708.	3.8	111
6	An investigation of hydrogen storage in a magnesium-based alloy processed by equal-channel angular pressing. International Journal of Hydrogen Energy, 2013, 38, 8306-8312.	3.8	96
7	Microstructure and wear behavior of Fe-based amorphous HVOF coatings produced from commercial precursors. Surface and Coatings Technology, 2017, 309, 938-944.	2.2	92
8	Corrosion resistance of Fe-based amorphous alloys. Journal of Alloys and Compounds, 2014, 586, S105-S110.	2.8	90
9	High Strength AA7050 Al alloy processed by ECAP: Microstructure and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5804-5811.	2.6	89
10	Nanoscale Grain Refinement and Hâ€Sorption Properties of MgH₂ Processed by Highâ€Pressure Torsion and Other Mechanical Routes. Advanced Engineering Materials, 2010, 12, 786-792.	1.6	82
11	Influence of processing parameters on the fabrication of a Cu-Al-Ni-Mn shape-memory alloy by selective laser melting. Additive Manufacturing, 2016, 11, 23-31.	1.7	80
12	Structural characterization and dehydrogenation behavior of Mgâ€“5 at.%Nb nano-composite processed by reactive milling. Journal of Alloys and Compounds, 2004, 376, 251-256.	2.8	77
13	Plasticity induced by nanoparticle dispersions in bulk metallic glasses. Journal of Non-Crystalline Solids, 2007, 353, 327-331.	1.5	76
14	H-sorption in MgH2 nanocomposites containing Fe or Ni with fluorine. Journal of Alloys and Compounds, 2005, 404-406, 409-412.	2.8	73
15	Topological instability as a criterion for design and selection of aluminum-based glass-former alloys. Applied Physics Letters, 2005, 86, 211904.	1.5	72
16	Synthesis and hydrogen storage behavior of Mgâ€“Vâ€“Alâ€“Crâ€“Ni high entropy alloys. International Journal of Hydrogen Energy, 2021, 46, 2351-2361.	3.8	69
17	Microstructure evolution and mechanical properties of Alâ€“Znâ€“Mgâ€“Cu alloy reprocessed by spray-forming and heat treated at peak aged condition. Journal of Alloys and Compounds, 2013, 579, 169-173.	2.8	67
18	Mechanical activation of TiFe for hydrogen storage by cold rolling under inert atmosphere. International Journal of Hydrogen Energy, 2018, 43, 2913-2918.	3.8	66

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19	Correlation between hydrogen storage properties and textures induced in magnesium through ECAP and cold rolling. International Journal of Hydrogen Energy, 2014, 39, 3810-3821.	3.8	63
20	Mg alloy for hydrogen storage processed by SPD. International Journal of Materials Research, 2009, 100, 1739-1746.	0.1	62
21	Improving H-sorption in MgH2 powders by addition of nanoparticles of transition metal fluoride catalysts and mechanical alloying. Journal of Alloys and Compounds, 2005, 389, 270-274.	2.8	60
22	Iron and niobium based additives in magnesium hydride: Microstructure and hydrogen storage properties. International Journal of Hydrogen Energy, 2017, 42, 6810-6819.	3.8	57
23	Formation of Fe-based glassy matrix composite coatings by laser processing. Surface and Coatings Technology, 2014, 240, 336-343.	2.2	56
24	Microstructure evolution in copper under severe plastic deformation detected by in situ X-ray diffraction using monochromatic synchrotron light. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 503, 10-13.	2.6	54
25	Nanostructured MgH2 prepared by cold rolling and cold forging. Journal of Alloys and Compounds, 2011, 509, S444-S448.	2.8	54
26	Corrosion properties of Feâ€“Crâ€“Nbâ€“B amorphous alloys and coatings. Surface and Coatings Technology, 2014, 254, 238-243.	2.2	53
27	Consolidation of partially amorphous aluminium-alloy powders by severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 375-377, 936-941.	2.6	50
28	Nanostructured composites obtained by reactive milling. Scripta Materialia, 2001, 44, 1735-1740.	2.6	49
29	Magnetic properties evaluation of spray formed and rolled Feâ€“6.5wt.% Siâ€“1.0wt.% Al alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 449-451, 375-377.	2.6	48
30	Magnetic properties of spray-formed Feâ€“6.5%Si and Feâ€“6.5%Siâ€“1.0%Al after rolling and heat treatment. Journal of Magnetism and Magnetic Materials, 2008, 320, e653-e656.	1.0	48
31	Partial crystallization and corrosion resistance of amorphous Fe-Cr-M-B (M=Mo, Nb) alloys. Journal of Non-Crystalline Solids, 2010, 356, 2651-2657.	1.5	44
32	Effects of equal-channel angular pressing and accumulative roll-bonding on hydrogen storage properties of a commercial ZK60 magnesium alloy. International Journal of Hydrogen Energy, 2015, 40, 16971-16976.	3.8	44
33	Sliding wear of spray-formed high-chromium white cast iron alloys. Wear, 2005, 259, 445-452.	1.5	42
34	Formation, stability and ultrahigh strength of novel nanostructured alloys by partial crystallization of high-entropy (Fe0.25Co0.25Ni0.25Cr0.125Mo0.125)86â€’89B11â€’14 amorphous phase. Acta Materialia, 2019, 170, 50-61.	8.3	42
35	Corrosion and wear properties of FeCrMnCoSi HVOF coatings. Surface and Coatings Technology, 2019, 357, 993-1003.	2.2	42
36	Effect of boron addition on the solidification sequence and microstructure of AlCoCrFeNi alloys. Journal of Alloys and Compounds, 2019, 775, 1235-1243.	2.8	42

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37	Laser surface remelting of a Cu-Al-Ni-Mn shape memory alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 661, 61-67.	2.6	41
38	Mg-Zn-Ca amorphous alloys for application as temporary implant: Effect of Zn content on the mechanical and corrosion properties. Materials and Design, 2016, 110, 188-195.	3.3	41
39	Microstructure and mechanical properties of spray deposited hypoeutectic Alâ€“Si alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 375-377, 577-580.	2.6	40
40	Hydrogen storage properties of pure Mg after the combined processes of ECAP and cold-rolling. Journal of Alloys and Compounds, 2014, 586, S405-S408.	2.8	40
41	Degradation of biodegradable implants: The influence of microstructure and composition of Mg-Zn-Ca alloys. Journal of Alloys and Compounds, 2019, 774, 168-181.	2.8	40
42	An approach to design single BCC Mg-containing high entropy alloys for hydrogen storage applications. International Journal of Hydrogen Energy, 2021, 46, 25555-25561.	3.8	40
43	Mg-containing multi-principal element alloys for hydrogen storage: A study of the MgTiNbCr0.5Mn0.5Ni0.5 and Mg0.68TiNbNi0.55 compositions. International Journal of Hydrogen Energy, 2020, 45, 19539-19552.	3.8	39
44	Reaction sintering of titanium carbide and titanium silicide prepared by high-energy milling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 336, 202-208.	2.6	38
45	Gene expression of human osteoblasts cells on chemically treated surfaces of Tiâ€“6Alâ€“4Vâ€“ELI. Materials Science and Engineering C, 2015, 51, 248-255.	3.8	38
46	Wear resistant coatings of boron-modified stainless steels deposited by Plasma Transferred Arc. Surface and Coatings Technology, 2016, 302, 255-264.	2.2	38
47	Metastable phases in Zr-based bulk glass-forming alloys detected using a synchrotron beam in transmission. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 304-306, 34-38.	2.6	37
48	Glass forming ability of the Alâ€“Ceâ€“Ni system. Journal of Non-Crystalline Solids, 2008, 354, 4874-4877.	1.5	37
49	Cold rolling of MgH2 powders containing different additives. International Journal of Hydrogen Energy, 2013, 38, 16193-16198.	3.8	37
50	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
51	Topological instability and electronegativity effects on the glass-forming ability of metallic alloys. Philosophical Magazine Letters, 2008, 88, 785-791.	0.5	36
52	Phase Formation, Thermal Stability and Mechanical Properties of a Cu-Al-Ni-Mn Shape Memory Alloy Prepared by Selective Laser Melting. Materials Research, 2015, 18, 35-38.	0.6	36
53	Microstructural investigation of Fe Cr Nb B amorphous/nanocrystalline coating produced by HVOF. Materials and Design, 2016, 111, 608-615.	3.3	36
54	Corrosion properties of amorphous, partially, and fully crystallized Fe68Cr8Mo4Nb4B16 alloy. Journal of Alloys and Compounds, 2020, 826, 154123.	2.8	36

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55	Amorphous phase formation in spray deposited AlYNiCo and AlYNiCoZr alloys. Scripta Materialia, 2001, 44, 1625-1628.	2.6	35
56	Al2O3â€“WC synthesis by high-energy reactive milling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 464, 47-51.	2.6	35
57	Osteoblasts behavior on chemically treated commercially pure titanium surfaces. Journal of Biomedical Materials Research - Part A, 2014, 102, 1816-1822.	2.1	35
58	Reassessment of the effects of Ce on quasicrystal formation and microstructural evolution in rapidly solidified Alâ€“Mn alloys. Acta Materialia, 2015, 98, 221-228.	3.8	35
59	Design of wear resistant boron-modified supermartensitic stainless steel by spray forming process. Materials and Design, 2015, 83, 214-223.	3.3	35
60	Reduced electronegativity difference as a factor leading to the formation of Al-based glassy alloys with a large supercooled liquid region of 50K. Applied Physics Letters, 2006, 88, 011911.	1.5	34
61	Crystallisation behaviours of Al-based metallic glasses: Compositional and topological aspects. Journal of Alloys and Compounds, 2009, 483, 89-93.	2.8	34
62	Homogenization of plastic deformation in metallic glass foils less than one micrometer thick. Physical Review B, 2010, 82, .	1.1	34
63	Spray forming of Cuâ€“11.85Alâ€“3.2Niâ€“3Mn (wt%) shape memory alloy. Journal of Alloys and Compounds, 2014, 615, S602-S606.	2.8	34
64	Crystallization behavior of amorphous Al84Y9Ni5Co2 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 304-306, 332-337.	2.6	33
65	Atomization and Selective Laser Melting of a Cu-Al-Ni-Mn Shape Memory Alloy. Materials Science Forum, 0, 802, 343-348.	0.3	33
66	Challenges in optimizing the resistance to corrosion and wear of amorphous Fe-Cr-Nb-B alloy containing crystalline phases. Journal of Non-Crystalline Solids, 2021, 555, 120537.	1.5	33
67	Room temperature hydrogen absorption by Mg andÂMg TiFe nanocomposites processed by high-energy ball milling. International Journal of Hydrogen Energy, 2018, 43, 12251-12259.	3.8	32
68	Hydrogen Storage in Mg and Mg-Based Alloys and Composites Processed by Severe Plastic Deformation. Materials Transactions, 2019, 60, 1561-1570.	0.4	32
69	Electrochemical impedance analysis of TiO2 nanotube porous layers based on an alternative representation of impedance data. Journal of Electroanalytical Chemistry, 2015, 737, 54-64.	1.9	31
70	Surface anodization of the biphasic Ti13Nb13Zr biocompatible alloy: Influence of phases on the formation of TiO2 nanostructures. Journal of Alloys and Compounds, 2019, 796, 93-102.	2.8	31
71	Recent developments on fabrication of Alâ€matrix composites reinforced with quasicrystals: From metastable to conventional processing. Journal of Materials Research, 2021, 36, 281-297.	1.2	31
72	Corrosion resistance of WE43 Mg alloy in sodium chloride solution. Materials Chemistry and Physics, 2021, 272, 124930.	2.0	31

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73	Amorphous phase formation during spray forming of Al84Y3Ni8Co4Zr1 alloy. Journal of Non-Crystalline Solids, 2001, 284, 134-138.	1.5	30
74	Cold rolling under inert atmosphere: A powerful tool for Mg activation. International Journal of Hydrogen Energy, 2014, 39, 4959-4965.	3.8	30
75	Topological Instability as a Criterion for Design and Selection of Easy Glass-Former Compositions in Cu-Zr Based Systems. Materials Transactions, 2007, 48, 1739-1742.	0.4	29
76	Thermodynamic analysis of the effect of annealing on the thermal stability of a Cuâ€“Alâ€“Niâ€“Mn shape memory alloy. Thermochimica Acta, 2015, 608, 1-6.	1.2	29
77	Evolution of the texture of spray-formed Feâ€“6.5wt.% Siâ€“1.0wt.% Al alloy during warm-rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 449-451, 854-857.	2.6	28
78	Microstructural characterization of a laser remelted coating of Al91Fe4Cr3Ti2 quasicrystalline alloy. Scripta Materialia, 2009, 61, 709-712.	2.6	28
79	Production and Corrosion Resistance of Thermally Sprayed Fe-Based Amorphous Coatings from Mechanically Milled Feedstock Powders. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 4860-4870.	1.1	28
80	Thermodynamic modelling of hydrogen-multicomponent alloy systems: Calculating pressure-composition-temperature diagrams. Acta Materialia, 2021, 215, 117070.	3.8	28
81	Crystallization of Fe-based amorphous alloys. Journal of Non-Crystalline Solids, 1999, 247, 19-25.	1.5	27
82	Microstructure and wear resistance of spray formed high chromium white cast iron. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 375-377, 589-594.	2.6	27
83	Processing of Al matrix composites reinforced with Alâ€“Ni compounds and Al2O3 by reactive milling and reactive sintering. Journal of Alloys and Compounds, 2009, 471, 448-452.	2.8	27
84	H-sorption properties and structural evolution of Mg processed by severe plastic deformation. Journal of Alloys and Compounds, 2013, 580, S187-S191.	2.8	27
85	Enhancement of Mechanical Properties of Aluminum and 2124 Aluminum Alloy by the Addition of Quasicrystalline Phases. Materials Research, 2016, 19, 74-79.	0.6	27
86	Phase transformation and shape memory effect of a Cu-Al-Ni-Mn-Nb high temperature shape memory alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 663, 64-68.	2.6	27
87	Structural, mechanical and thermal characterization of an Al-Co-Fe-Cr alloy for wear and thermal barrier coating applications. Surface and Coatings Technology, 2017, 319, 241-248.	2.2	27
88	Effect of cold rolling on the structure and hydrogen properties of AZ91 and AM60D magnesium alloys processed by ECAP. International Journal of Hydrogen Energy, 2017, 42, 21822-21831.	3.8	27
89	Synthesis and hydrogen sorption properties of Mg2FeH6â€“MgH2 nanocomposite prepared by reactive milling. Journal of Alloys and Compounds, 2012, 536, S250-S254.	2.8	26
90	An alternative route to produce easily activated nanocrystalline TiFe powder. International Journal of Hydrogen Energy, 2018, 43, 16107-16116.	3.8	26

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91	Fabrication of Al-matrix composite reinforced with quasicrystals using conventional metallurgical fabrication methods. Scripta Materialia, 2019, 173, 21-25.	2.6	26
92	In situ crystallization of Zr55Cu30Al10Ni5 bulk glass forming from the glassy and undercooled liquid states using synchrotron radiation. Journal of Non-Crystalline Solids, 1999, 247, 31-34.	1.5	25
93	Phases formed during crystallization of Zr55Al10Ni5Cu30 metallic glass containing oxygen. Journal of Non-Crystalline Solids, 2002, 304, 51-55.	1.5	25
94	Topological instability, average electronegativity difference and glass forming ability of amorphous alloys. Intermetallics, 2009, 17, 183-185.	1.8	25
95	Microstructure study of Al 7050 alloy reprocessed by spray forming and hot-extrusion and aged at 121ÂÂ°C. Intermetallics, 2013, 43, 182-187.	1.8	25
96	MgH2Â+ÂFeNb nanocomposites for hydrogen storage. Materials Chemistry and Physics, 2014, 147, 557-562.	2.0	25
97	Severely deformed ZK60Â+Â2.5% Mm alloy for hydrogen storage produced by two different processing routes. International Journal of Hydrogen Energy, 2016, 41, 11284-11292.	3.8	25
98	Hydrogen storage in MgH2LaNi5 composites prepared by cold rolling under inert atmosphere. International Journal of Hydrogen Energy, 2018, 43, 13348-13355.	3.8	25
99	Unusual room temperature ductility of glassy copperâ€“zirconium caused by nanoparticle dispersions that grow during shear. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 449-451, 105-110.	2.6	24
100	Nanoquasicrystalline Alâ€“Feâ€“Crâ€“Nb alloys produced by powder metallurgy. Journal of Alloys and Compounds, 2013, 577, 650-657.	2.8	24
101	Processing and characterization of amorphous magnesium based alloy for application in biomedical implants. Journal of Materials Research and Technology, 2014, 3, 203-209.	2.6	24
102	Wear and corrosion properties of HVOF coatings from Superduplex alloy modified with addition of boron. Surface and Coatings Technology, 2017, 309, 911-919.	2.2	24
103	The formation of quasicrystals in Al-Cu-Fe-(M=Cr,Ni) melt-spun ribbons. Journal of Alloys and Compounds, 2018, 731, 1288-1294.	2.8	24
104	Single step fabrication by spray forming of large volume Al-based composites reinforced with quasicrystals. Scripta Materialia, 2020, 181, 86-91.	2.6	24
105	Effects of the Chromium Content in (TiVNb)100â^'xCrx Body-Centered Cubic High Entropy Alloys Designed for Hydrogen Storage Applications. Energies, 2021, 14, 3068.	1.6	24
106	Spray forming of glass former Fe63Nb10Al4Si3B20 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 449-451, 884-889.	2.6	23
107	Severe plastic deformation of Mg-Fe powders to produce bulk hydrides. Journal of Physics: Conference Series, 2009, 144, 012015.	0.3	23
108	MgH2-based nanocomposites prepared by short-time high energy ball milling followed byÂcold rolling: A new processing route. International Journal of Hydrogen Energy, 2014, 39, 4404-4413.	3.8	23

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109	Hydrogen storage in heavily deformed ZK60 alloy modified with 2.5Âwt.% Mm addition. International Journal of Hydrogen Energy, 2016, 41, 4177-4184.	3.8	23
110	Anelastic behaviour in Nbî—¸Ti alloys containing interstitial elements. Journal of Alloys and Compounds, 1994, 211-212, 37-40.	2.8	22
111	Application of mathematical simulation and the factorial design method to the optimization of the atomization stage in the spray forming of a Cuâ€“6% Zn alloy. Journal of Materials Processing Technology, 2000, 102, 221-229.	3.1	22
112	Processing of aluminium alloys containing titanium addition by mechanical alloying. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 375-377, 1201-1205.	2.6	22
113	The formation of quasicrystal phase in Al-Cu-Fe system by mechanical alloying. Materials Research, 2012, 15, 749-752.	0.6	22
114	Wear-resistant boride reinforced steel coatings produced by non-vacuum electron beam cladding. Surface and Coatings Technology, 2020, 386, 125466.	2.2	22
115	Characterization of hydrogen storage properties of Mg-Fe-CNT composites prepared by ball milling, hot-extrusion and severe plastic deformation methods. International Journal of Hydrogen Energy, 2016, 41, 23092-23098.	3.8	21
116	Fast hydrogen absorption/desorption kinetics in reactive milled Mg-8 mol% Fe nanocomposites. International Journal of Hydrogen Energy, 2020, 45, 12408-12418.	3.8	21
117	Interaction between Fe66Cr10Nb5B19 metallic glass and aluminum during spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 799, 140165.	2.6	21
118	Metallurgical processing of Mg alloys and MgH2 for hydrogen storage. Journal of Alloys and Compounds, 2022, 897, 162798.	2.8	21
119	Amorphous phase formation in Fe-6.0wt%Si alloy by mechanical alloying. Scripta Materialia, 1999, 42, 213-217.	2.6	20
120	Amorphous and nanostructured Alâ€“Feâ€“Nd powders obtained by gas atomization. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 315, 89-97.	2.6	20
121	Severe plastic deformation and different surface treatments on the biocompatible Ti13Nb13Zr and Ti35Nb7Zr5Ta alloys: Microstructural and phase evolutions, mechanical properties, and bioactivity analysis. Journal of Alloys and Compounds, 2020, 812, 152116.	2.8	20
122	Wear and Corrosion Performance of Al-Cu-Fe-(Cr) Quasicrystalline Coatings Produced by HVOF. Journal of Thermal Spray Technology, 2020, 29, 1195-1207.	1.6	20
123	Microstructure and mechanical properties of spray deposited and extruded/heat treated hypoeutectic Alâ€“Si alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 449-451, 850-853.	2.6	19
124	Laser remelting of Al91Fe4Cr3Ti2 quasicrystalline phase former alloy. Journal of Alloys and Compounds, 2010, 495, 646-649.	2.8	19
125	Microstructural characterization and hydrogenation study of extruded MgFe alloy. Journal of Alloys and Compounds, 2010, 504, S299-S301.	2.8	19
126	2Mgâ€“Fe alloys processed by hot-extrusion: Influence of processing temperature and the presence of MgO and MgH2 on hydrogenation sorption properties. Journal of Alloys and Compounds, 2011, 509, S460-S463.	2.8	19

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127	Ordered phases and texture in spray-formed Feâ€“5wt%Si. Journal of Alloys and Compounds, 2011, 509, S260-S264.	2.8	19
128	Surface chemical treatment of ultrafine-grained Tiâ€“6Alâ€“7Nb alloy processed by severe plastic deformation. Journal of Alloys and Compounds, 2015, 643, S241-S245.	2.8	19
129	Mg-based Nanocomposites for Hydrogen Storage Containing Ti-Cr-V Alloys as Additives. Materials Research, 2016, 19, 80-85.	0.6	19
130	Low temperature rolling of AZ91 alloy for hydrogen storage. International Journal of Hydrogen Energy, 2017, 42, 29394-29405.	3.8	19
131	Predicting the Formation of Intermetallic Phases in the Al-Si-Fe System with Mn Additions. Journal of Phase Equilibria and Diffusion, 2017, 38, 298-304.	0.5	19
132	Improved ball milling method for the synthesis of nanocrystalline TiFe compound ready to absorb hydrogen. International Journal of Hydrogen Energy, 2020, 45, 2084-2093.	3.8	19
133	Mechanical multiple relaxation spectra in Nbî—¸Zeî—¸O alloys. Acta Metallurgica Et Materialia, 1990, 38, 391-396.	1.9	18
134	Thermodynamic predictions for the formation of ceramic-metal composite by self-propagating high-temperature synthesis. Journal of Materials Science Letters, 1991, 10, 819-823.	0.5	18
135	Synthesis of Al2O3â€“NbC by reactive milling and production of nanocomposites. Journal of Materials Processing Technology, 2003, 143-144, 185-190.	3.1	18
136	Outâ€ofâ€Plane Magnetic Patterning Based on Indentationâ€Induced Nanocrystallization of a Metallic Glass. Small, 2010, 6, 1543-1549.	5.2	18
137	Microstructure and mechanical properties of Alâ€“Siâ€“Mg ribbons. Journal of Alloys and Compounds, 2010, 495, 386-390.	2.8	18
138	Magnesium-Nickel alloy for hydrogen storage produced by melt spinning followed by cold rolling. Materials Research, 2012, 15, 813-817.	0.6	18
139	Hydrogen storage properties of MgH2 processed by cold forging. Journal of Alloys and Compounds, 2014, 615, S719-S724.	2.8	18
140	Characterization and Corrosion Resistance of Boron-Containing-Austenitic Stainless Steels Produced by Rapid Solidification Techniques. Materials, 2018, 11, 2189.	1.3	18
141	Changing the solidification sequence and the morphology of iron-containing intermetallic phases in AA6061 aluminum alloy processed by spray forming. Materials Characterization, 2018, 145, 507-515.	1.9	18
142	Effects of friction stir processing on hydrogen storage of ZK60 alloy. International Journal of Hydrogen Energy, 2018, 43, 11085-11091.	3.8	18
143	Influence of chromium concentration and partial crystallization on the corrosion resistance of FeCrNiB amorphous alloys. Materials Characterization, 2021, 179, 111369.	1.9	18
144	FeNiB-based metallic glasses with fcc crystallisation products. Journal of Non-Crystalline Solids, 2002, 304, 44-50.	1.5	17

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145	Crystallisation behaviour and glass-forming ability in Alâ€“Laâ€“Ni system. Journal of Alloys and Compounds, 2010, 495, 334-337.	2.8	17
146	Structural characterization and hydrogen storage properties of MgH 2 â€“Mg 2 CoH 5 nanocomposites. International Journal of Hydrogen Energy, 2017, 42, 14593-14601.	3.8	17
147	Formation and stability of complex metallic phases including quasicrystals explored through combinatorial methods. Scientific Reports, 2019, 9, 7136.	1.6	17
148	Glass transition Tg, thermal expansion, and quenched-in free volume Î”Vf in pyrex glass measured by time-resolved X-ray diffraction. Journal of Alloys and Compounds, 2005, 388, L1-L3.	2.8	16
149	Design and production of Al-Mn-Ce alloys with tailored properties. Materials and Design, 2016, 110, 436-448.	3.3	16
150	Effect of Cr addition on the formation of the decagonal quasicrystalline phase of a rapidly solidified Al-Ni-Co alloy. Journal of Alloys and Compounds, 2017, 707, 41-45.	2.8	16
151	Processing of MgH2 by extensive cold rolling under protective atmosphere. International Journal of Hydrogen Energy, 2017, 42, 2201-2208.	3.8	16
152	Tailoring the microstructure of recycled 319 aluminum alloy aiming at high ductility. Journal of Materials Research and Technology, 2019, 8, 3539-3549.	2.6	16
153	Formation of Metallic Glass Coatings by Detonation Spraying of a Fe66Cr10Nb5B19 Powder. Metals, 2019, 9, 846.	1.0	16
154	Metastable phases, quasicrystals and solid solutions in Zr-based bulk glass-forming alloys. Scripta Materialia, 2001, 44, 1239-1244.	2.6	15
155	Hydrogen Activation Behavior of Commercial Magnesium Processed by Different Severe Plastic Deformation Routes. Materials Science Forum, 2010, 667-669, 1047-1051.	0.3	15
156	Microstructural characterization of Ti-6Al-7Nb alloy after severe plastic deformation. Materials Research, 2012, 15, 786-791.	0.6	15
157	Assessing technological developments in amorphous/glassy metallic alloys using patent indicators. Journal of Alloys and Compounds, 2017, 716, 330-335.	2.8	15
158	Effect of iron on the microstructure and mechanical properties of the spray-formed and rotary-swaged 319 aluminum alloy. International Journal of Advanced Manufacturing Technology, 2019, 102, 3879-3894.	1.5	15
159	Designing new quasicrystalline compositions in Al-based alloys. Journal of Alloys and Compounds, 2020, 823, 153765.	2.8	15
160	Formation, thermal stability and mechanical properties of high-entropy (Fe0.25Co0.25Ni0.25Cr0.125Mo0.0625Nb0.0625)100â€’Bx (xÂ= 7â€“14) amorphous alloys. Journal of Alloys and Compounds, 2020, 825, 153858.	2.8	15
161	Microstructure and wear resistance of spray-formed supermartensitic stainless steel. Materials Research, 2013, 16, 642-646.	0.6	15
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