Xiaoqin Zeng

List of Publications by Citations

280 papers	7,831 citations	46 h-index	76 g-index
286 ext. papers	9,088 ext. citations	4.6 avg, IF	6.1 L-index

#	Paper	IF	Citations
280	Microstructure and strengthening mechanism of high strength Mg10Gd2Y0.5Zr alloy. *Journal of Alloys and Compounds*, **2007**, 427, 316-323	5.7	517
279	Precipitation in a Mg10Gd3Y0.4Zr (wt.%) alloy during isothermal ageing at 250°C. *Journal of Alloys and Compounds*, **2006**, 421, 309-313	5.7	335
278	Microstructure evolution in a Mg15Gd0.5Zr (wt.%) alloy during isothermal aging at 250°C. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 431, 322-327	5.3	265
277	Effects of rare earths on the microstructure, properties and fracture behavior of MgAl alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2000**, 278, 66-76	5.3	239
276	Effects of yttrium on microstructure and mechanical properties of hot-extruded MgZnZr alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 373, 320-327	5.3	188
275	Fracture behavior of AZ91 magnesium alloy. *Materials Letters*, **2000**, 44, 265-268	3.3	161
274	Effect of Nd and Y addition on microstructure and mechanical properties of as-cast MgZnZr alloy. *Journal of Alloys and Compounds*, **2007**, 427, 115-123	5.7	136
273	Equal-channel angular pressing of magnesium alloy AZ91 and its effects on microstructure and mechanical properties. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 483-484, 113-116	5.3	123
272	The microstructure evolution with lamellar 14H-type LPSO structure in an Mg96.5Gd2.5Zn1 alloy during solid solution heat treatment at 773K. *Journal of Alloys and Compounds*, **2009**, 477, 193-197	5.7	119
271	Precipitation behavior and mechanical properties of a MgZnZr alloy processed by thermo-mechanical treatment. *Journal of Alloys and Compounds*, **2005**, 395, 213-219	5.7	115
270	Microstructure evolution of Mg10Gd3Y1.2Zn0.4Zr alloy during heat-treatment at 773 K. *Journal of Alloys and Compounds*, **2009**, 468, 164-169	5.7	109
269	Comparison of the microstructure and mechanical properties of a ZK60 alloy with and without 1.3wt.% gadolinium addition. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 433, 175-181	5.3	109
268	Effect of strontium on the microstructure, mechanical properties, and fracture behavior of AZ31 magnesium alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2006**, 37, 1333-1341	2.3	107
267	Effects of RE on the microstructure and mechanical properties of Mg8ZnAl magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 416, 109-118	5.3	103
266	Precipitation and its effect on the mechanical properties of a cast MgGdNdZr alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 489, 44-54	5.3	102
265	Influence of Mg17Al12 intermetallic compounds on the hot extruded microstructures and mechanical properties of MgAlZn alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 466, 134-139	5.3	98
264	Study on the hydrogen storage properties of core–shell structured MgRE (RE = Nd, Gd, Er) nano-composites synthesized through arc plasma method. *International Journal of Hydrogen Energy*, **2013**, 38, 2337-2346	6.7	93

263	Mechanical properties and microstructure of AZ31 Mg alloy processed by two-step equal channel angular extrusion. *Materials Letters*, **2005**, 59, 2267-2270	3.3	88
262	Microstructure evolution of AZ31 Mg alloy during equal channel angular extrusion. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 423, 247-252	5.3	83
261	Formation of a lamellar 14H-type long period stacking ordered structure in an as-cast Mg□Gd□Zn□Zr alloy. *Journal of Materials Science*, **2009**, 44, 1607-1612	4.3	76
260	The influence of heat treatment on damping response of AZ91D magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 392, 150-155	5.3	76
259	Improving ductility of a Mg alloy via non-basal slip induced by Ca addition. *International Journal of Plasticity*, **2019**, 120, 164-179	7.6	75
258	Low cycle fatigue of a rare-earth containing extruded magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 575, 65-73	5.3	74
257	Formation of 14H-type long period stacking ordered structure in the as-cast and solid solution treated Mg-Gd-Zn-Zr alloys. *Journal of Materials Research*, **2009**, 24, 1842-1854	2.5	71
256	Behavior of surface oxidation on molten Mg□Al□.5Zn□.3Be alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 301, 154-161	5.3	67
255	Effect of rare earth elements on deformation behavior of an extruded Mg□10Gd□Y□.5Zr alloy during compression. *Materials & Design*, **2013**, 46, 411-418		65
254	Influence of strong static magnetic field on intermediate phase growth in Mg□Al diffusion couple. *Journal of Alloys and Compounds*, **2007**, 440, 132-136	5.7	64
253	Effects of tantalum ion implantation on the corrosion behavior of AZ31 magnesium alloys. *Journal of Alloys and Compounds*, **2007**, 437, 87-92	5.7	63
252	Study on ignition proof magnesium alloy with beryllium and rare earth additions. *Scripta Materialia*, **2000**, 43, 403-409	5.6	62
251	Early oxidation behaviors of Mg□Y alloys at high temperatures. *Journal of Alloys and Compounds*, **2008**, 460, 368-374	5.7	61
250	The effects of yttrium element on microstructure and mechanical properties of Mg□wt.% Zn□wt.% Al alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 402, 142-148	5.3	60
249	Experimental and numerical study of warm deep drawing of AZ31 magnesium alloy sheet. *International Journal of Machine Tools and Manufacture*, **2007**, 47, 436-443	9.4	59
248	Study on hydrogen storage properties of Mg nanoparticles confined in carbon aerogels. *International Journal of Hydrogen Energy*, **2013**, 38, 5302-5308	6.7	57
247	Study of slip activity in a Mg-Y alloy by in situ high energy X-ray diffraction microscopy and elastic viscoplastic self-consistent modeling. *Acta Materialia*, **2018**, 155, 138-152	8.4	57
246	Hydrogen Storage Properties of a Mg□Ni Nanocomposite Coprecipitated from Solution. *Journal of Physical Chemistry C*, **2014**, 118, 18401-18411	3.8	56

245	Deformation behavior and dynamic recrystallization of a MgZnYZr alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 428, 91-97	5.3	53
244	Preparation and hydrogen sorption properties of a Ni decorated Mg based Mg@Ni nano-composite. *International Journal of Hydrogen Energy*, **2015**, 40, 1820-1828	6.7	52
243	Effects of yttrium and zinc addition on the microstructure and mechanical properties of MgYZn alloys. *Journal of Materials Science*, **2010**, 45, 2510-2517	4.3	51
242	Wear behavior of nanocrystalline structured magnesium alloy induced by surface mechanical attrition treatment. *Surface and Coatings Technology*, **2015**, 261, 219-226	4.4	49
241	Effect of pre-deformation on aging characteristics and mechanical properties of a MgGdNdZr alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 491, 103-109	5.3	49
240	Behavior of MgAlSi alloys during solution heat treatment at 420°C. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 301, 255-258	5.3	49
239	NaBH4 in "Graphene Wrapper:" Significantly Enhanced Hydrogen Storage Capacity and Regenerability through Nanoencapsulation. *Advanced Materials*, **2015**, 27, 5070-4	24	48
238	Grain Refinement of AZ31 Magnesium Alloy by Titanium and Low-Frequency Electromagnetic Casting. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 1358-1366	2.3	48
237	Microstructure and mechanical properties of ultrafine grained Mg97Y2Zn1 alloy processed by equal channel angular pressing. *Journal of Alloys and Compounds*, **2007**, 440, 94-100	5.7	48
236	Characterization of ceramic PVD thin films on AZ31 magnesium alloys. *Applied Surface Science*, **2006** , 252, 7422-7429	6.7	48
235	Improving corrosion resistance of titanium-coated magnesium alloy by modifying surface characteristics of magnesium alloy prior to titanium coating deposition. *Scripta Materialia*, **2009**, 61, 269-272	5.6	47
234	Effect of heat treatment on the tensile behavior of selective laser melted Ti-6Al-4V by in situ X-ray characterization. *Acta Materialia*, **2020**, 189, 93-104	8.4	43
233	Effects of Nd on the microstructure of ZA52 alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 392, 229-234	5.3	43
232	Hydrogen storage properties of MgTMLa (TM=Ti, Fe, Ni) ternary composite powders prepared through arc plasma method. *International Journal of Hydrogen Energy*, **2013**, 38, 8852-8862	6.7	42
231	Microstructural characterisation of as cast and homogenised MgGdNdZr alloys. *Materials Science and Technology*, **2008**, 24, 320-326	1.5	42
230	Room temperature deformation of LPSO structures by non-basal slip. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 682, 354-358	5.3	41
229	Microstructure evolution and mechanical properties of an MgGd alloy subjected to surface mechanical attrition treatment. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 630, 146-154	5.3	41
228	Influence of Anion Charge on Li Ion Diffusion in a New Solid-State Electrolyte, Li3LaI6. *Chemistry of Materials*, **2019**, 31, 7425-7433	9.6	41

227	First-principles study of structural stabilities and electronic characteristics of Mg□a intermetallic compounds. *Computational Materials Science*, **2007**, 41, 78-85	3.2	40
226	Observation of non-basal slip in Mg-Y by in situ three-dimensional X-ray diffraction. *Scripta Materialia*, **2018**, 143, 44-48	5.6	39
225	Effect of solute atoms and second phases on the thermal conductivity of Mg-RE alloys: A quantitative study. *Journal of Alloys and Compounds*, **2018**, 747, 431-437	5.7	38
224	The corrosion behavior of Ce-implanted magnesium alloys. *Materials Characterization*, **2008**, 59, 618-623	3.9	38
223	Effect of precipitation aging on the fracture behavior of Mg□1Gd□2Nd□.4Zr cast alloy. *Materials Characterization*, **2008**, 59, 857-862	3.9	38
222	Effect of thermo-mechanical treatment on the microstructure and mechanical properties of a Mg□Gd□Nd□.5Zr alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 454-455, 314-321	5.3	38
221	Theoretical investigation of typical fcc precipitates in Mg-based alloys. *Acta Materialia*, **2008**, 56, 3353-3357	8.4	38
220	Mechanical, electronic and thermodynamic properties of C14-type AMg2 (A=Ca, Sr and Ba) compounds from first principles calculations. *Computational Materials Science*, **2015**, 97, 75-85	3.2	37
219	Synthesis and hydrogen storage properties of core□shell structured binary Mg@Ti and ternary Mg@Ti@Ni composites. *International Journal of Hydrogen Energy*, **2017**, 42, 2239-2247	6.7	37
218	Numerical simulation of low pressure die casting of magnesium wheel. *International Journal of Advanced Manufacturing Technology*, **2007**, 32, 257-264	3.2	37
217	Effect of low-frequency electromagnetic field on microstructures and macrosegregation of □270 mm DC ingots of an Al□Zn□Mg□Cu□r alloy. *Materials Letters*, **2005**, 59, 1502-1506	3.3	37
216	Basal-plane stacking-fault energies of Mg alloys: A first-principles study of metallic alloying effects. *Journal of Materials Science and Technology*, **2018**, 34, 1773-1780	9.1	36
215	Hydrogen storage properties of nanocrystalline Mg2Ni prepared from compressed 2MgH2Ni powder. *International Journal of Hydrogen Energy*, **2018**, 43, 22391-22400	6.7	36
214	Formation of lamellar phase with 18R-type LPSO structure in an as-cast Mg96Gd3Zn1(at%) alloy. *Materials Letters*, **2016**, 169, 168-171	3.3	35
213	Preparation and characterization of ceramic/metal duplex coatings deposited on AZ31 magnesium alloy by multi-magnetron sputtering. *Materials Letters*, **2006**, 60, 674-678	3.3	35
212	Characterization of precipitate phases in a Mg□Dy□Gd□Nd alloy. *Journal of Alloys and Compounds*, **2007**, 439, 254-257	5.7	35
211	Characterization of phases in a Mg□Gd□Sm□.4Zr (wt.%) alloy during solution treatment. *Materials Characterization*, **2009**, 60, 555-559	3.9	34
210	Characterization of dynamic recrystallisation in as-homogenized Mg□n□□r alloy using processing map. *Journal of Materials Science*, **2006**, 41, 3603-3608	4.3	33

209	Highly deformable MgAlCa alloy with Al2Ca precipitates. *Acta Materialia*, **2020**, 200, 236-245	8.4	33
208	Hydrogen storage properties of core-shell structured Mg@TM (TM=Co, V) composites. *International Journal of Hydrogen Energy*, **2017**, 42, 15246-15255	6.7	32
207	Hydrogen storage and hydrolysis properties of core-shell structured Mg-MFx (M=V, Ni, La and Ce) nano-composites prepared by arc plasma method. *Journal of Power Sources*, **2017**, 366, 131-142	8.9	32
206	Efficient Absorption of CO2 by Introduction of Intramolecular Hydrogen Bonding in Chiral Amino Acid Ionic Liquids. *Energy & Fuels*, **2018**, 32, 6130-6135	4.1	32
205	A comparison study of MgY2O3 and MgY hydrogen storage composite powders prepared through arc plasma method. *Journal of Alloys and Compounds*, **2014**, 615, S684-S688	5.7	32
204	Deformation mechanisms, activated slip systems and critical resolved shear stresses in an Mg-LPSO alloy studied by micro-pillar compression. *Materials and Design*, **2018**, 154, 203-216	8.1	32
203	Hydrogen storage properties of a Mg-La-Fe-H nano-composite prepared through reactive ball milling. *Journal of Alloys and Compounds*, **2017**, 701, 208-214	5.7	31
202	Nano-scale precipitation and phase growth in Mg-Gd binary alloy: An atomic-scale investigation using HAADF-STEM. *Materials and Design*, **2018**, 137, 316-324	8.1	31
201	Study on Fe reduction in AZ91 melt by B2O3. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 368, 311-317	5.3	31
200	Visualization of fast hydrogen pumpin core shell nanostructured Mg@Pt through hydrogen-stabilized Mg3Pt. *Journal of Materials Chemistry A*, **2019**, 7, 14629-14637	13	30
199	Mechanisms of reversible hydrogen storage in NaBH4 through NdF3 addition. *Journal of Materials Chemistry A*, **2013**, 1, 3983	13	30
198	A high-strength extruded Mg-Gd-Zn-Zr alloy with superplasticity. *Journal of Materials Research*, **2009**, 24, 3596-3602	2.5	30
197	First-principles study of the electronic structure and mechanical properties of CaMg2 Laves phase. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2008**, 489, 444-450	5.3	30
196	Effect of initial temper on the creep behavior of a MgGdNdZr alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 492, 185-190	5.3	30
195	An electron back-scattered diffraction study on the microstructure evolution of AZ31 Mg alloy during equal channel angular extrusion. *Journal of Alloys and Compounds*, **2006**, 426, 148-154	5.7	30
194	Effect of Nd content and heat treatment on the thermal conductivity of Mg Nd alloys. *Journal of Alloys and Compounds*, **2016**, 685, 114-121	5.7	29
193	Influence of 3d transition metals on the stability and electronic structure of MgH2. *Journal of Applied Physics*, **2012**, 111, 093720	2.5	29
192	First-principles Calculations of Strengthening Compounds in Magnesium Alloy: A General Review. *Journal of Materials Science and Technology*, **2016**, 32, 1222-1231	9.1	29

191	Preparation and hydrogen storage properties of MgH2-trimesic acid-TM MOF (TM=Co, Fe) composites. *Journal of Materials Science and Technology*, **2019**, 35, 2132-2143	9.1	28
190	Preparation and hydrogen sorption properties of a nano-structured Mg based Mg□aO composite. *International Journal of Hydrogen Energy*, **2012**, 37, 13067-13073	6.7	28
189	Early high temperature oxidation behaviors of Mg□0Gd3Y alloys. *Journal of Alloys and Compounds*, **2009**, 474, 499-504	5.7	28
188	High strength extruded Mg3Zn2Nd□.5Y□.6Zr□.4Ca alloy produced by electromagnetic casting. *Materials Letters*, **2005**, 59, 2549-2554	3.3	28
187	Reversible hydrogen storage in a 3NaBH4/YF3 composite. *International Journal of Hydrogen Energy*, **2012**, 37, 17118-17125	6.7	27
186	Twinning behavior and lattice rotation in a Mg□dY2r alloy under ballistic impact. *Journal of Alloys and Compounds*, **2015**, 650, 622-632	5.7	26
185	A co-precipitated Mg□i nano-composite with high capacity and rapid hydrogen absorption kinetics at room temperature. *RSC Advances*, **2014**, 4, 42764-42771	3.7	26
184	Low cycle fatigue of an extruded Mg3Nd□.2Zn□.5Zr magnesium alloy. *Materials & Design*, **2014**, 64, 63-73		26
183	Cyclic Deformation Behavior of a Rare-Earth Containing Extruded Magnesium Alloy: Effect of Heat Treatment. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 1168-1187	2.3	26
182	Effect of cerium on microstructures and mechanical properties of AZ61 wrought magnesium alloy. *Journal of Materials Science*, **2004**, 39, 7061-7066	4.3	26
181	Study on hydrogen storage properties of MgX (X = Fe, Co, V) nano-composites co-precipitated from solution. *RSC Advances*, **2015**, 5, 7687-7696	3.7	25
180	Microstructure evolution and mechanical properties of magnesium alloys containing long period stacking ordered phase. *Materials Characterization*, **2018**, 141, 286-295	3.9	25
179	Effect of strain ratio on cyclic deformation behavior of a rare-earth containing extruded magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 588, 250-259	5.3	25
178	Nanostructured bulk Mg + MgO composite synthesized through arc plasma evaporation and high pressure torsion for H-storage application. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2014**, 183, 1-5	3.1	25
177	Yttrium ion implantation on the surface properties of magnesium. *Applied Surface Science*, **2006**, 253, 2437-2442	6.7	25
176	Understanding the High Strength and Good Ductility in LPSO-Containing Mg Alloy Using Synchrotron X-ray Diffraction. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2018**, 49, 5382-5392	2.3	25
175	Investigation of the alloying effect on deformation behavior in Mg by Visco-Plastic Self-Consistent modeling. *Journal of Magnesium and Alloys*, **2020**, 8, 210-218	8.8	23
174	Enhanced hydrogenation and hydrolysis properties of core-shell structured Mg-MOx (M = Al, Ti and Fe) nanocomposites prepared by arc plasma method. *Chemical Engineering Journal*, **2019**, 371, 233-243	14.7	22

173	Structural, electronic and thermodynamic properties of BiF3-type Mg3Gd compound: A first-principle study. *Physica B: Condensed Matter*, **2014**, 432, 33-39	2.8	22
172	Microstructure and Mechanical Properties of Mg-7Al-2Sn Alloy Processed by Super Vacuum Die-Casting. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2013**, 44, 4788-4799	2.3	22
171	Preparation and hydrogen storage properties of ultrafine pure Mg and Mg□i particles. *Transactions of Nonferrous Metals Society of China*, **2012**, 22, 1849-1854	3.3	22
170	Crystal structure, energetics, and phase stability of strengthening precipitates in Mg alloys: A first-principles study. *Acta Materialia*, **2018**, 158, 65-78	8.4	20
169	Using CoS cathode materials with 3D hierarchical porosity and an ionic liquid (IL) as an electrolyte additive for high capacity rechargeable magnesium batteries. *Journal of Materials Chemistry A*, **2019**, 7, 18880-18888	13	20
168	Reversible hydrogen sorption in NaBH4 at lower temperatures. *Journal of Materials Chemistry A*, **2013**, 1, 13510	13	20
167	Formation by reactive magnetron sputtering of TiN coating on Ti-implanted magnesium alloy. *Materials Letters*, **2006**, 60, 2252-2255	3.3	20
166	Predictions of mechanical and thermodynamic properties of Mg17Al12 and Mg2Sn from first-principles calculations. *Philosophical Magazine*, **2015**, 95, 1626-1645	1.6	19
165	Dry Sliding Wear Behavior of Mg-Zn-Gd Alloy before and after Cryogenic Treatment. *Tribology Transactions*, **2014**, 57, 275-282	1.8	19
164	Effect of Si on the precipitation behavior of Mg-6Al alloy. *Journal of Materials Science Letters*, **2001**, 20, 397-399		19
163	LPSO STRUCTURE AND AGING PHASES IN Mg--Gd--Zn--Zr ALLOY. *Jinshu Xuebao/Acta Metallurgica Sinica*, **2010**, 46, 1041-1046		19
162	Effects of La fluoride and La hydride on the reversible hydrogen sorption behaviors of NaBH4: a comparative study. *Journal of Materials Chemistry A*, **2014**, 2, 8557-8570	13	18
161	High temperature compressive deformation behavior of an extruded Mg□Gd□Y□.5Zr (wt.%) alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 526, 150-155	5.3	18
160	Hydrogen storage properties of a Mg□e oxide nano-composite prepared through arc plasma method. *Journal of Alloys and Compounds*, **2013**, 580, S167-S170	5.7	17
159	Preparation of LaMgNi4-xCox alloys and hydrogen storage properties. *Transactions of Nonferrous Metals Society of China*, **2013**, 23, 2307-2311	3.3	17
158	Microstructure and mechanical properties of Mg□Gd□Y□.5Zr alloy processed by high-vacuum die-casting. *Transactions of Nonferrous Metals Society of China*, **2014**, 24, 3769-3776	3.3	17
157	A modified Johnson-Cook constitutive relationship for a rare-earth containing magnesium alloy. *Journal of Rare Earths*, **2013**, 31, 1202-1207	3.7	16
156	Carbon aerogel supported Pt□n catalyst and its oxygen reduction catalytic performance in magnesium-air batteries. *Journal of Materials Research*, **2014**, 29, 2863-2870	2.5	16

155	Effects of trimesic acid-Ni based metal organic framework on the hydrogen sorption performances of MgH2. *International Journal of Hydrogen Energy*, **2019**, 44, 29235-29248	6.7	15
154	Microstructural evolution and mechanical properties of Mg95.5Y3Zn1.5 alloy processed by extrusion and ECAP. *Metals and Materials International*, **2014**, 20, 285-290	2.4	15
153	Preparation and Hydrogen Storage Properties of Mg-Rich Mg-Ni Ultrafine Particles. *Journal of Nanomaterials*, **2012**, 2012, 1-8	3.2	15
152	Influence of heat treatment on microstructure and mechanical properties of Mg-10Gd-3Y-1.2Zn-0.4Zr alloy. *Transactions of Nonferrous Metals Society of China*, **2008**, 18, s117-s121	3.3	15
151	First-principles calculations and experimental studies of XYZ2 thermoelectric compounds: detailed analysis of van der Waals interactions. *Journal of Materials Chemistry A*, **2018**, 6, 19502-19519	13	15
150	Revealing slip-induced extension twinning behaviors dominated by micro deformation in a magnesium alloy. *International Journal of Plasticity*, **2020**, 128, 102669	7.6	14
149	Effect of heat treatment on microstructures and mechanical properties of high vacuum die casting Mg8Gd3Y0.4Zr magnesium alloy. *Transactions of Nonferrous Metals Society of China*, **2014**, 24, 3762-3768	3.3	14
148	Effects of Cu and Mn on mechanical properties and damping capacity of Mg-Cu-Mn alloy. *Transactions of Nonferrous Metals Society of China*, **2008**, 18, s55-s58	3.3	14
147	Microstructural evolution of AZ61 magnesium alloy during hot deformation. *Materials Science and Technology*, **2004**, 20, 1397-1402	1.5	14
146	Hydrogen storage in Mg2Fe(Ni)H6 nanowires synthesized from coarse-grained Mg and nano sized Fe(Ni) precursors. *International Journal of Hydrogen Energy*, **2016**, 41, 14795-14806	6.7	14
145	Study of age hardening in a Mg2.2 wt%Nd alloy by in situ synchrotron X-ray diffraction and mechanical tests. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 708, 319-328	5.3	13
144	Effect of Al Content on Hot-Tearing Susceptibility of Mg-10Zn-xAl Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 1897-1910	2.3	13
143	Influence of twinning-induced recrystallization on texture evolution in a high strain rate compressed Mg-Zn alloy. *Materials Characterization*, **2020**, 162, 110192	3.9	13
142	Microstructure investigation of the 6H-type long-period stacking order phase in Mg97Y2Zn1 alloy. *Scripta Materialia*, **2008**, 58, 807-810	5.6	13
141	Grain-scale deformation in a Mg0.8 wt% Y alloy using crystal plasticity finite element method. *Journal of Materials Science and Technology*, **2019**, 35, 2200-2206	9.1	12
140	Hydrogen storage properties of nanostructured 2MgH2Co powders: The effect of high-pressure compression. *International Journal of Hydrogen Energy*, **2019**, 44, 15146-15158	6.7	12
139	First principles investigation of 2-short and 2-long in MgGd alloy. *Journal of Alloys and Compounds*, **2016**, 671, 177-183	5.7	12
138	Understanding the Strengthening Effect of 1 Precipitates in Mg-Nd Using In Situ Synchrotron X-ray Diffraction. *Jom*, **2018**, 70, 2315-2320	2.1	12

137	Effects of REF3 (RE□=□Y, La, Ce) additives on dehydrogenation properties of LiAlH4. *International Journal of Hydrogen Energy*, **2014**, 39, 11642-11650	6.7	12
136	Effects of LnF3 on reversible and cyclic hydrogen sorption behaviors in NaBH4: electronic nature of Ln versus crystallographic factors. *Journal of Materials Chemistry A*, **2015**, 3, 4493-4500	13	12
135	Study on reversible hydrogen sorption behaviors of□a 3NaBH4/HoF3 composite. *International Journal of Hydrogen Energy*, **2014**, 39, 14275-14281	6.7	12
134	Structure and thermodynamic studies of the LaMgNi4 compound and its hydrides by density functional theory. *Intermetallics*, **2013**, 38, 30-35	3.5	12
133	Characterization of microstructure in high strength Mg96Y3Zn1 alloy processed by extrusion and equal channel angular pressing. *Journal of Rare Earths*, **2011**, 29, 902-906	3.7	12
132	Effect of pre-deformation on aging characteristics and mechanical properties of Mg-Gd-Nd-Zr alloy. *Transactions of Nonferrous Metals Society of China*, **2007**, 17, 1164-1168	3.3	12
131	Research on dynamic precipitation behavior of pre-solution treated Mg□wt.% Zn□wt.% Al(□wt.%Y) alloy during creep. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 424, 40-46	5.3	12
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