# Xiaoqin Zeng

## List of Publications by Year in Descending Order



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| 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 | Role of Alloyed Sc on the Corrosion Behavior of Mg. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2022**, 53, 741-746 | 2.3 | 0 |
| 279 | The role of grain boundary plane in slip transfer during deformation of magnesium alloys. *Acta Materialia*, **2022**, 227, 117662 | 8.4 | 2 |
| 278 | Developing ductile and isotropic Ti alloy with tailored composition for laser powder bed fusion. *Additive Manufacturing*, **2022**, 52, 102656 | 6.1 | 0 |
| 277 | Alignment and strengthening effect of □ precipitates in Mg-Gd-Y-Zr during ageing process studied by HAADF-STEM and GPA. *Philosophical Magazine Letters*, **2022**, 102, 71-80 | 1 | 0 |
| 276 | Micro-compression of Al2Ca particles in a Mg-Al-Ca alloy. *Materialia*, **2022**, 21, 101300 | 3.2 | 0 |
| 275 | Unveiling the strengthening effect of LPSO phase in a Mg-Y-Zn alloy. *Materials Letters*, **2022**, 311, 131524 | 3.3 | 0 |
| 274 | Microstructure understanding of high Cr-Ni austenitic steel corrosion in high-temperature steam. *Acta Materialia*, **2022**, 226, 117634 | 8.4 | 4 |
| 273 | Investigation of anodized Ta/Ag coating on magnesium bipolar plate for lightweight proton exchange membrane fuel cells. *Corrosion Science*, **2022**, 197, 110086 | 6.8 | 0 |
| 272 | Influence of Al2Y particles on mechanical properties of Mg-11Y-1Al alloy with different grain sizes. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2022**, 831, 142166 | 5.3 | 1 |
| 271 | Effect of Sc microalloying on microstructure evolution and mechanical properties of extruded Al□nMg□u alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2022**, 831, 142197 | 5.3 | 4 |
| 270 | Dislocation behavior in a polycrystalline Mg-Y alloy using multi-scale characterization and VPSC simulation. *Journal of Materials Science and Technology*, **2022**, 98, 87-98 | 9.1 | 5 |
| 269 | A hot tearing criterion based on solidification microstructure in cast alloys. *Journal of Materials Science and Technology*, **2022**, 105, 68-80 | 9.1 | 2 |
| 268 | Mechanobiologically optimized Ti-35Nb-2Ta-3Zr improves load transduction and enhances bone remodeling in tilted dental implant therapy.. *Bioactive Materials*, **2022**, 16, 15-26 | 16.7 | 0 |
| 267 | Cluster Hardening Effects on Twinning in Mg-Zn-Ca Alloys. *Metals*, **2022**, 12, 693 | 2.3 | |
| 266 | Crystallographic features of axis tilt boundaries in a high strain rate deformed Mg9Y alloy. *Materials Characterization*, **2021**, 182, 111522 | 3.9 | 2 |
| 265 | Dislocation-induced plastic instability in a rare earth containing magnesium alloy. *Materialia*, **2021**, 15, 101038 | 3.2 | 1 |
| 264 | Unveiling precipitation behavior in Mg-Y based alloys. *Materials and Design*, **2021**, 202, 109570 | 8.1 | 4 |

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| 263 | Solid solution strengthening mechanism in high pressure die casting Al□Ce□Mg alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2021**, 812, 141109 | 5.3 | 10 |
| 262 | A novel high corrosion-resistant polytetrafluoroethylene/carbon cloth/Ag coating on magnesium alloys as bipolar plates for light-weight proton exchange membrane fuel cells. *Journal of Power Sources*, **2021**, 484, 229231 | 8.9 | 7 |
| 261 | Twin recrystallization mechanisms in a high strain rate compressed Mg-Zn alloy. *Journal of Magnesium and Alloys*, **2021**, 9, 499-504 | 8.8 | 10 |
| 260 | Accelerated Development of High-Strength Magnesium Alloys by Machine Learning. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2021**, 52, 943-954 | 2.3 | 6 |
| 259 | Hot Tearing Behavior in Double Ternary Eutectic Alloy System: Al-Mg-Si Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2021**, 52, 789-805 | 2.3 | 2 |
| 258 | Characterization on the formation of porosity and tensile properties prediction in die casting Mg alloys. *Journal of Magnesium and Alloys*, **2021**, | 8.8 | 2 |
| 257 | Origin of twin-like {336□4} tilt boundary and associated solute segregation in a high strain rate deformed Mg-Y alloy. *Scripta Materialia*, **2021**, 201, 113982 | 5.6 | 1 |
| 256 | The effect of basal dislocation on 112□1 twin boundary evolution in a Mg-Gd-Y-Zr alloy. *Journal of Materials Science and Technology*, **2021**, 81, 212-218 | 9.1 | 4 |
| 255 | First-principles study of water decomposition and hydrogen evolution on MgZn2 Laves phase. *Computational Materials Science*, **2021**, 196, 110532 | 3.2 | 0 |
| 254 | Grain-size effect on the deformation of Mg□Al□Sn alloy: Experiments and elastic-viscoplastic self-consistent modeling. *International Journal of Plasticity*, **2021**, 143, 103018 | 7.6 | 3 |
| 253 | Effect of Al content on microstructure, thermal conductivity, and mechanical properties of Mg□La□Mn alloys. *Journal of Materials Research*, **2021**, 36, 3145-3154 | 2.5 | 2 |
| 252 | Investigation on the corrosion behavior of single-phase and binary-phase Mg-Sc alloys: An experimental and first-principles study. *Materials Characterization*, **2021**, 179, 111294 | 3.9 | 0 |
| 251 | Deformation mechanisms of Mg-Ca-Zn alloys studied by means of micropillar compression tests. *Acta Materialia*, **2021**, 217, 117151 | 8.4 | 7 |
| 250 | Origins of high ductility exhibited by an extruded magnesium alloy Mg-1.8Zn-0.2Ca: Experiments and crystal plasticity modeling. *Journal of Materials Science and Technology*, **2021**, 84, 27-42 | 9.1 | 12 |
| 249 | Revisiting the evolution behaviors of □phase in Mg-Nd and Mg-Y alloys. *Materials Letters*, **2021**, 305, 130857 | 3.3 | 0 |
| 248 | Atomic-scale observation on the precipitates in various aging stages of Mg□Gd□Y□Cu alloy. *Journal of Alloys and Compounds*, **2021**, 887, 161423 | 5.7 | 2 |
| 247 | Obtaining □ phase by addition of Mn in Mg-Gd-Y-Zn-Ni-Mn alloy: atomic-scale insights by scanning transmission electron microscopy. *Philosophical Magazine Letters*, **2021**, 101, 107-114 | 1 | 0 |
| 246 | Activation of <c> dislocations in Mg with solute Y. *Journal of Magnesium and Alloys*, **2021**, | 8.8 | 2 |

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| 245 | Hot Tearing Behavior in Double Ternary Eutectic Alloy System: Mg-Ce-Al Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 6658-6669 | 2.3 | 3 |
| 244 | Oxidation mechanism of molten Al5Mg2SiMn alloy. *Journal of Materials Science*, **2020**, 55, 12554-12567 | 4.3 | 2 |
| 243 | Designing High Corrosion Resistant Peritectic Magnesium Alloys via Sc and Y Addition. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 2509-2522 | 2.3 | 4 |
| 242 | 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 |
| 241 | 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 |
| 240 | 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 |
| 239 | 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 |
| 238 | Revealing slip-induced extension twinning behaviors dominated by micro deformation in a magnesium alloy. *International Journal of Plasticity*, **2020**, 128, 102669 | 7.6 | 14 |
| 237 | Study on the precipitates in various aging stages and composite strengthening effect of precipitates and long-period stacking ordered structure of MgCdYNi alloy. *Journal of Materials Research*, **2020**, 35, 172-184 | 2.5 | 1 |
| 236 | Enhanced ductility in high-pressure die casting Mg-4Ce-xAl-0.5Mn alloys via modifying second phase. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 773, 138870 | 5.3 | 10 |
| 235 | Highly deformable MgAlCa alloy with Al2Ca precipitates. *Acta Materialia*, **2020**, 200, 236-245 | 8.4 | 33 |
| 234 | Revealing the Subsurface Basal <a> Dislocation Activity in Magnesium Through Lattice Rotation Analysis. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2020**, 51, 4414-4421 | 2.3 | 5 |
| 233 | Thermodynamic assessment of the TiAlZr system and atomic mobility of its bcc phase. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2020**, 70, 101801 | 1.9 | 6 |
| 232 | Microstructural evolution of Mg-Al-Re alloy reinforced with alumina fibers. *Journal of Magnesium and Alloys*, **2020**, 8, 565-577 | 8.8 | 3 |
| 231 | Predicting Tensile Properties of AZ31 Magnesium Alloys by Machine Learning. *Jom*, **2020**, 72, 3935-3942 | 2.1 | 7 |
| 230 | Cyclic Deformation Behavior of A Heat-Treated Die-Cast Al-Mg-Si-Based Aluminum Alloy. *Materials*, **2020**, 13, | 3.5 | 2 |
| 229 | 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 |
| 228 | Theoretical Analysis of the Galvanic Corrosion Behavior of Mg-Ge Binary Alloy. *Journal of the Electrochemical Society*, **2019**, 166, C421-C427 | 3.9 | 5 |

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| 227 | Predicting Twin Nucleation in a Polycrystalline Mg Alloy Using Machine Learning Methods. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2019**, 50, 5543-5560 | 2.3 | 9 |
| 226 | Grain-scale deformation in a Mg□.8 wt% Y alloy using crystal plasticity finite element method. *Journal of Materials Science and Technology*, **2019**, 35, 2200-2206 | 9.1 | 12 |
| 225 | Unexpected capture of Guinier-Preston zone and □ phase in as-cast Mg-Gd-Y-Zn-Ni-Mn alloy: Atomic-scale insights. *Materials Characterization*, **2019**, 153, 103-107 | 3.9 | 4 |
| 224 | 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 |
| 223 | Visualization of fast □ydrogen pump□n core□hell nanostructured Mg@Pt through hydrogen-stabilized Mg3Pt. *Journal of Materials Chemistry A*, **2019**, 7, 14629-14637 | 13 | 30 |
| 222 | 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 |
| 221 | Reversible hydrogen storage system of 3NaBH4-0.5ScF3-0.5YF3: The synergistic effect of ScF3 and YF3. *Journal of Alloys and Compounds*, **2019**, 791, 1270-1276 | 5.7 | 7 |
| 220 | 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 |
| 219 | Microstructure and Tensile Properties of the Mg-6Zn-4Al-xSn Die Cast Magnesium Alloy. *Metals*, **2019**, 9, 113 | 2.3 | 0 |
| 218 | 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 |
| 217 | Reversible hydrogen sorption behaviors of the 3NaBH4-(x)YF3-(1-x)GdF3 system: The effect of double rare earth metal cations. *International Journal of Hydrogen Energy*, **2019**, 44, 4868-4877 | 6.7 | 9 |
| 216 | 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 |
| 215 | Enhanced hydrogen sorption properties of core-shell like structured Mg@NaBH4/MgB2 composite. *Journal of Alloys and Compounds*, **2019**, 810, 151763 | 5.7 | 7 |
| 214 | Surfactant induced formation of flower-like V2O5 microspheres as cathode materials for rechargeable magnesium batteries. *Ionics*, **2019**, 25, 5889-5897 | 2.7 | 5 |
| 213 | 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 |
| 212 | Study of the dislocation activity in a Mg□ alloy by differential aperture X-ray microscopy. *Materials Characterization*, **2019**, 156, 109873 | 3.9 | 9 |
| 211 | Deformation mechanism and dynamic precipitation in a Mg-7Al-2Sn alloy processed by surface mechanical attrition treatment. *Journal of Materials Science and Technology*, **2019**, 35, 1473-1478 | 9.1 | 6 |
| 210 | Quantitative Study of Microstructure-Dependent Thermal Conductivity in Mg-4Ce-xAl-0.5Mn Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2019**, 50, 1970-1984 | 2.3 | 10 |

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| 209 | On the strengthening precipitate structures in Mg-Gd-Ag alloy: An atomic-resolution investigation using Cs-corrected STEM. *Materials Letters*, **2019**, 238, 66-69 | 3.3 | 8 |
| 208 | A high-throughput computation framework for generalized stacking fault energies of pure metals. *Computational Materials Science*, **2019**, 159, 357-364 | 3.2 | 8 |
| 207 | First principles calculations on the influence of solute elements and chlorine adsorption on the anodic corrosion behavior of Mg (0001) surface. *Surface Science*, **2018**, 672-673, 68-74 | 1.8 | 10 |
| 206 | Mechanisms of partial hydrogen sorption reversibility in a 3NaBH/ScF composite.. *RSC Advances*, **2018**, 8, 9211-9217 | 3.7 | 9 |
| 205 | Unveiling the Interfaces between β′ Precipitates in MgGdZr Alloy: Insights from Atomic-Scale HAADF-STEM. *Advanced Engineering Materials*, **2018**, 20, 1700730 | 3.5 | 1 |
| 204 | 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 |
| 203 | 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 |
| 202 | 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 |
| 201 | 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 |
| 200 | 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 |
| 199 | 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 |
| 198 | Microstructure evolution and mechanical properties of magnesium alloys containing long period stacking ordered phase. *Materials Characterization*, **2018**, 141, 286-295 | 3.9 | 25 |
| 197 | Understanding the Strengthening Effect of β′ Precipitates in Mg-Nd Using In Situ Synchrotron X-ray Diffraction. *Jom*, **2018**, 70, 2315-2320 | 2.1 | 12 |
| 196 | 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 |
| 195 | Hydrogen storage properties of nanocrystalline Mg2Ni prepared from compressed 2MgH2Ni powder. *International Journal of Hydrogen Energy*, **2018**, 43, 22391-22400 | 6.7 | 36 |
| 194 | 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 |
| 193 | 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 |
| 192 | Hydrogen storage in MgNi(Fe)H nano particles synthesized from coarse-grained Mg and nano sized Ni(Fe) precursor.. *RSC Advances*, **2018**, 8, 18959-18965 | 3.7 | 6 |

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| 191 | 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 |
| 190 | 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 |
| 189 | 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 |
| 188 | Segregation of solute atoms in Mg Ce binary alloy: atomic-scale novel structures observed by HAADF-STEM. *Philosophical Magazine*, **2017**, 97, 1498-1508 | 1.6 | 11 |
| 187 | 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 |
| 186 | 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 |
| 185 | Study of age hardening in a Mg 2.2 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 |
| 184 | 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 |
| 183 | Formation of a new incoherent twin boundary in a Mg Gd alloy. *Scripta Materialia*, **2016**, 112, 136-139 | 5.6 | 10 |
| 182 | Carbon supported nano Pt Mo alloy catalysts for oxygen reduction in magnesium ir batteries. *RSC Advances*, **2016**, 6, 83025-83030 | 3.7 | 10 |
| 181 | HRTEM studies of aging precipitate phases in the Mg-10Gd-3Y-0.4Zr alloy. *Journal of Rare Earths*, **2016**, 34, 441-446 | 3.7 | 7 |
| 180 | Hot compressive deformation behaviors of Mg 10Gd Y 0.5Zr alloy. *Progress in Natural Science: Materials International*, **2016**, 26, 78-84 | 3.6 | 3 |
| 179 | Atomic relaxation, stability and electronic properties of Mg2Sn (100) surfaces from ab-initio calculations. *Journal of Magnesium and Alloys*, **2016**, 4, 62-67 | 8.8 | 7 |
| 178 | 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 |
| 177 | First principles investigation of -short and -long in Mg Gd alloy. *Journal of Alloys and Compounds*, **2016**, 671, 177-183 | 5.7 | 12 |
| 176 | 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 |
| 175 | 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 |
| 174 | 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 |

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| 173 | Hot deformation behavior and workability of pre-extruded ZK60A magnesium alloy. *Transactions of Nonferrous Metals Society of China*, **2015**, 25, 1822-1830 | 3.3 | 8 |
| 172 | Twinning behavior and lattice rotation in a Mg□d▽□r alloy under ballistic impact. *Journal of Alloys and Compounds*, **2015**, 650, 622-632 | 5.7 | 26 |
| 171 | Predictions of mechanical and thermodynamic properties of Mg17Al12 and Mg2Sn from first-principles calculations. *Philosophical Magazine*, **2015**, 95, 1626-1645 | 1.6 | 19 |
| 170 | Microstructure evolution and mechanical properties of an Mg□d alloy subjected to surface mechanical attrition treatment. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 630, 146-154 | 5.3 | 41 |
| 169 | Study on reversible hydrogen sorption behaviors of 3LiBH4/graphene and 3LiBH4/graphene□0 wt% CeF3 composites. *RSC Advances*, **2015**, 5, 82916-82923 | 3.7 | 7 |
| 168 | Study on hydrogen storage properties of Mg□ (X = Fe, Co, V) nano-composites co-precipitated from solution. *RSC Advances*, **2015**, 5, 7687-7696 | 3.7 | 25 |
| 167 | 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 |
| 166 | Precipitation Sequence in a Mg-Sm-Zn-Zr Alloy **2015**, 367-372 | | |
| 165 | NaBH4 in "Graphene Wrapper:" Significantly Enhanced Hydrogen Storage Capacity and Regenerability through Nanoencapsulation. *Advanced Materials*, **2015**, 27, 5070-4 | 24 | 48 |
| 164 | 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 |
| 163 | Wear behavior of nanocrystalline structured magnesium alloy induced by surface mechanical attrition treatment. *Surface and Coatings Technology*, **2015**, 261, 219-226 | 4.4 | 49 |
| 162 | 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 |
| 161 | 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 |
| 160 | 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 |
| 159 | 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 |
| 158 | Hydrogen Storage Properties of a Mg□i Nanocomposite Coprecipitated from Solution. *Journal of Physical Chemistry C*, **2014**, 118, 18401-18411 | 3.8 | 56 |
| 157 | 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 |
| 156 | Low cycle fatigue of an extruded Mg□Nd□.2Zn□.5Zr magnesium alloy. *Materials & Design*, **2014**, 64, 63-73 | | 26 |

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| 155 | 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 |
| 154 | Dry Sliding Wear Behavior of Mg-Zn-Gd Alloy before and after Cryogenic Treatment. *Tribology Transactions*, **2014**, 57, 275-282 | 1.8 | 19 |
| 153 | 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 |
| 152 | Hydrogen Sorption Behaviors of a Core–Shell Structured Mg@Fe Composite Powder. *Materials Transactions*, **2014**, 55, 1156-1160 | 1.3 | 6 |
| 151 | Hydrogen storage properties of MgTiO2 composite powder prepared by arc plasma method. *Transactions of Nonferrous Metals Society of China*, **2014**, 24, 3834-3839 | 3.3 | 9 |
| 150 | Microstructure and mechanical properties of MgGdYZr alloy processed by high-vacuum die-casting. *Transactions of Nonferrous Metals Society of China*, **2014**, 24, 3769-3776 | 3.3 | 17 |
| 149 | Effect of heat treatment on microstructures and mechanical properties of high vacuum die casting MgGdYZr magnesium alloy. *Transactions of Nonferrous Metals Society of China*, **2014**, 24, 3762-3768 | 3.3 | 14 |
| 148 | Cyclic Deformation of Rare-Earth Containing Magnesium Alloys. *Advanced Materials Research*, **2014**, 891-892, 391-396 | 0.5 | 4 |
| 147 | Carbon aerogel supported PtZn catalyst and its oxygen reduction catalytic performance in magnesium-air batteries. *Journal of Materials Research*, **2014**, 29, 2863-2870 | 2.5 | 16 |
| 146 | Study on hydrogenation behaviors of a Mg-13Y alloy. *International Journal of Hydrogen Energy*, **2014**, 39, 8303-8310 | 6.7 | 10 |
| 145 | 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 |
| 144 | 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 |
| 143 | Study on reversible hydrogen sorption behaviors of a 3NaBH4/HoF3 composite. *International Journal of Hydrogen Energy*, **2014**, 39, 14275-14281 | 6.7 | 12 |
| 142 | Hydrogen storage properties of MgTMa (TM=Ti, Fe, Ni) ternary composite powders prepared through arc plasma method. *International Journal of Hydrogen Energy*, **2013**, 38, 8852-8862 | 6.7 | 42 |
| 141 | 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 |
| 140 | Effect of rare earth elements on deformation behavior of an extruded Mg10GdYZr alloy during compression. *Materials & Design*, **2013**, 46, 411-418 | | 65 |
| 139 | Mechanisms of reversible hydrogen storage in NaBH4 through NdF3 addition. *Journal of Materials Chemistry A*, **2013**, 1, 3983 | 13 | 30 |
| 138 | Reversible hydrogen sorption in NaBH4 at lower temperatures. *Journal of Materials Chemistry A*, **2013**, 1, 13510 | 13 | 20 |

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| 137 | Microstructure characterization and hydrogen desorption behaviors of MgAlH powders prepared by reactive milling in hydrogen. *Transactions of Nonferrous Metals Society of China*, **2013**, 23, 3112-3118 | 3.3 | 2 |
| 136 | A modified Johnson-Cook constitutive relationship for a rare-earth containing magnesium alloy. *Journal of Rare Earths*, **2013**, 31, 1202-1207 | 3.7 | 16 |
| 135 | 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 |
| 134 | Hydrogen storage properties of a MgCe oxide nano-composite prepared through arc plasma method. *Journal of Alloys and Compounds*, **2013**, 580, S167-S170 | 5.7 | 17 |
| 133 | Preparation of LaMgNi4-xCox alloys and hydrogen storage properties. *Transactions of Nonferrous Metals Society of China*, **2013**, 23, 2307-2311 | 3.3 | 17 |
| 132 | Effect of Solid Solution Treatment on Microstructure and Mechanical Properties of Mg97Y2Zn1 Alloy. *Journal of Materials Engineering and Performance*, **2013**, 22, 523-527 | 1.6 | 11 |
| 131 | Structure and thermodynamic studies of the LaMgNi4 compound and its hydrides by density functional theory. *Intermetallics*, **2013**, 38, 30-35 | 3.5 | 12 |
| 130 | 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 |
| 129 | Study on hydrogen storage properties of Mg nanoparticles confined in carbon aerogels. *International Journal of Hydrogen Energy*, **2013**, 38, 5302-5308 | 6.7 | 57 |
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