# Alan A Luo

List of Publications by Year
in descending order

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|---|---|---|---|
| 179 papers | 7,533 citations | 71102 41 h-index | 66911 78 g-index |
| 213 all docs | 213 docs citations | 213 times ranked | 3664 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Advanced Metal Casting. , 2022, , 13-26. | | 2 |
| 2 | Dynamic precipitation and enhanced mechanical properties of ZK60 magnesium alloy achieved by low temperature extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 829, 142143. | 5.6 | 38 |
| 3 | On the interactions between molten aluminum and high entropy alloy particles during aluminum matrix composite processing. Journal of Alloys and Compounds, 2022, 895, 162712. | 5.5 | 10 |
| 4 | Phase equilibria and microstructure investigation of Mg-Gd-Y-Zn alloy system. Journal of Magnesium and Alloys, 2022, 10, 689-696. | 11.9 | 17 |
| 5 | Low-Cyclic Fatigue Behavior of Peak-Aged Mgâ€“Nd-Based Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 754-761. | 2.2 | 2 |
| 6 | Deformation microstructure and thermomechanical processing maps of homogenized AA2070 aluminum alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 834, 142619. | 5.6 | 23 |
| 7 | Order-disorder transition and its mechanical effects in lightweight AlCrTiV high entropy alloys. Scripta Materialia, 2022, 210, 114462. | 5.2 | 13 |
| 8 | Characterization and modeling of concurrent precipitation in Mg-Al-Sn alloys using an improved Kampmann-Wagner numerical (KWN) model. Materialia, 2022, 21, 101348. | 2.7 | 10 |
| 9 | Towards high strength cast Mg-RE based alloys: Phase diagrams and strengthening mechanisms. Journal of Magnesium and Alloys, 2022, 10, 1401-1427. | 11.9 | 43 |
| 10 | Alloy development and process innovations for light metals casting. Journal of Materials Processing Technology, 2022, 306, 117606. | 6.3 | 66 |
| 11 | A New Recycled Alâ€“Siâ€“Mg Alloy for Sustainable Structural Die Casting Applications. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 2861-2873. | 2.2 | 12 |
| 12 | Cellular automaton simulation and experimental validation of eutectic transformation during solidification of Al-Si alloys. Npj Computational Materials, 2022, 8, . | 8.7 | 8 |
| 13 | Three-dimensional visualization and quantification of microporosity in aluminum castings by X-ray micro-computed tomography. Journal of Materials Science and Technology, 2021, 65, 99-107. | 10.7 | 21 |
| 14 | The effect of microstructure on the plastic strain localization and fatigue crack initiation in cast Mgâ€“8Gdâ€“3Yâ€“0.5Zr alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 801, 140383. | 5.6 | 7 |
| 15 | Co-free CuFeMnNi high-entropy alloy with tunable tensile properties by thermomechanical processing. Journal of Materials Science, 2021, 56, 7670-7680. | 3.7 | 10 |
| 16 | On the exceptionally high ductility of Mgâ€“2Zn-0.3Ca-0.2Ce-0.1Mn alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 819, 141484. | 5.6 | 6 |
| 17 | Lightweight, strong, moldable wood via cell wall engineering as a sustainable structural material. Science, 2021, 374, 465-471. | 12.6 | 137 |
| 18 | A Novel Mgâ€“CaMgSn Master Alloy for Grain Refinement in Mgâ€“Al-Based Alloys. Metals, 2021, 11, 1722. | 2.3 | 3 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | 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. | 5.6 | 22 |
| 20 | Microstructural evolution of Mg-Al-Re alloy reinforced with alumina fibers. Journal of Magnesium and Alloys, 2020, 8, 565-577. | 11.9 | 11 |
| 21 | Biocompatibility of a novel heat-treated and ceramic-coated magnesium alloy (Mgâ€“1.2Znâ€“0.5Caâ€“0.5Mn) for resorbable skeletal fixation devices. MRS Communications, 2020, 10, 467-474. | 1.8 | 6 |
| 22 | Titanium alloy design and casting process development using an Integrated Computational Materials Engineering (ICME) approach. MATEC Web of Conferences, 2020, 321, 10013. | 0.2 | 1 |
| 23 | A New Model for Predicting Oxide-Related Defects in Aluminum Castings. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2020, 51, 1989-2002. | 2.1 | 2 |
| 24 | Modeling Precipitation Hardening and Yield Strength in Cast Al-Si-Mg-Mn Alloys. Metals, 2020, 10, 1356. | 2.3 | 14 |
| 25 | Predicting and controlling interfacial microstructure of magnesium/aluminum bimetallic structures for improved interfacial bonding. Journal of Magnesium and Alloys, 2020, 8, 578-586. | 11.9 | 37 |
| 26 | A new magnesium sheet alloy with high tensile properties and room-temperature formability. Scientific Reports, 2020, 10, 10044. | 3.3 | 22 |
| 27 | Multi-component numerical simulation and experimental study of dendritic growth during solidification processing. Journal of Materials Processing Technology, 2020, 286, 116829. | 6.3 | 10 |
| 28 | Prediction of location specific mechanical properties of aluminum casting using a new CA-FEA (cellular automaton-finite element analysis) approach. Materials and Design, 2020, 194, 108929. | 7.0 | 17 |
| 29 | Predicting gas and shrinkage porosity in solidification microstructure: A coupled three-dimensional cellular automaton model. Journal of Materials Science and Technology, 2020, 49, 91-105. | 10.7 | 27 |
| 30 | Assessing phase equilibria and atomic mobility of intermetallic compounds in aluminum-magnesium alloy system. Journal of Alloys and Compounds, 2020, 825, 153962. | 5.5 | 17 |
| 31 | Microstructure and hot deformation behavior of a new aluminumâ€“lithiumâ€“copper based AA2070 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 777, 139048. | 5.6 | 33 |
| 32 | Constitutive behavior and processing maps of a new wrought magnesium alloy ZE20 (Mg-2Zn-0.2Ce). Journal of Magnesium and Alloys, 2020, 8, 111-126. | 11.9 | 44 |
| 33 | CALPHAD Modeling and Microstructure Investigation of Mgâ€“Gdâ€“Yâ€“Zn Alloys. Minerals, Metals and Materials Series, 2020, , 61-69. | 0.4 | 0 |
| 34 | Basal slip dominant fatigue damage behavior in a cast Mg-8Gd-3Y-Zr alloy. International Journal of Fatigue, 2019, 118, 104-116. | 5.7 | 25 |
| 35 | Towards high ductility in magnesium alloys - The role of intergranular deformation. International Journal of Plasticity, 2019, 123, 121-132. | 8.8 | 76 |
| 36 | A CALPHAD (CALculation of PHAse Diagrams)-based viscosity model for Al-Ni-Fe-Co melt system. Journal of Molecular Liquids, 2019, 291, 111271. | 4.9 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | A new magnesium sheet alloy and its multi-stage homogenization for simultaneously improved ductility and strength at room temperature. Scripta Materialia, 2019, 171, 92-97. | 5.2 | 49 |
| 38 | Materials for Automotive Lightweighting. Annual Review of Materials Research, 2019, 49, 327-359. | 9.3 | 143 |
| 39 | Oxidation and Ignition Behaviors of Molten Mg-Nd-Zr Alloy in Resin-Sand Mold. Journal of Materials Engineering and Performance, 2019, 28, 5344-5351. | 2.5 | 2 |
| 40 | Ceramic coating for delayed degradation of Mg-1.2Zn-0.5Ca-0.5Mn bone fixation and instrumentation. Thin Solid Films, 2019, 687, 137456. | 1.8 | 19 |
| 41 | Three-dimensional cellular automaton simulation of coupled hydrogen porosity and microstructure during solidification of ternary aluminum alloys. Scientific Reports, 2019, 9, 13099. | 3.3 | 13 |
| 42 | A Formation Map of Iron-Containing Intermetallic Phases in Recycled Cast Aluminum Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 5945-5956. | 2.2 | 40 |
| 43 | Examination of Dendritic Growth During Solidification of Ternary Alloys via a Novel Quantitative 3D Cellular Automaton Model. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 123-135. | 2.1 | 19 |
| 44 | Predicting grain structure in high pressure die casting of aluminum alloys: A coupled cellular automaton and process model. Computational Materials Science, 2019, 161, 64-75. | 3.0 | 28 |
| 45 | Controlling Particle/Metal Interactions in Metal Matrix Composites During Solidification: The Role of Melt Viscosity and Cooling Rate. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 3736-3747. | 2.2 | 18 |
| 46 | CALPHAD-Based Modeling and Experimental Validation of Microstructural Evolution and Microsegregation in Magnesium Alloys During Solidification. Journal of Phase Equilibria and Diffusion, 2019, 40, 495-507. | 1.4 | 18 |
| 47 | â€œEffect of Zn content and aging temperature on the in-vitro properties of heat-treated and Ca/P ceramic-coated Mg-0.5%Ca-x%Zn alloysâ€• Materials Science and Engineering C, 2019, 103, 109700. | 7.3 | 11 |
| 48 | A new fatigue life model for thermally-induced cracking in H13 steel dies for die casting. Journal of Materials Processing Technology, 2019, 271, 444-454. | 6.3 | 25 |
| 49 | Inhibiting Brittle Intermetallic Layer in Magnesium/Aluminum Bimetallic Castings via In Situ Formation of Mg2Si Phase. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 1547-1552. | 2.1 | 7 |
| 50 | Predicting primary dendrite arm spacing in Alâ€“Siâ€“Mg alloys: effect of Mg alloying. Journal of Materials Science, 2019, 54, 9907-9920. | 3.7 | 17 |
| 51 | Ultrahigh strength Mg-Al-Ca-Mn extrusion alloys with various aluminum contents. Journal of Alloys and Compounds, 2019, 792, 130-141. | 5.5 | 70 |
| 52 | The effects of grain size and heat treatment on the deformation heterogeneities and fatigue behaviors of GW83K magnesium alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 754, 246-257. | 5.6 | 18 |
| 53 | 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. | 2.2 | 26 |
| 54 | The Effects of Silicon Addition on the Microstructure and Mechanical Properties of a Mg-Al-Sn Alloy Produced by Vacuum Assisted High Pressure Die Casting. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 1522-1533. | 2.2 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Lightweight AlCrTiV high-entropy alloys with dual-phase microstructure via microalloying. Journal of Materials Science, 2019, 54, 2271-2277. | 3.7 | 40 |
| 56 | Manufacturing Materials Optimization Research at The REMADE Institute. Minerals, Metals and Materials Series, 2019, , 33-36. | 0.4 | 1 |
| 57 | Phase-field modelling on effect of pressure on growth kinetics of Mgâ€“Alâ€“Sn alloy. Materials Science and Technology, 2018, 34, 1362-1369. | 1.6 | 3 |
| 58 | Experimental investigation and simulation of precipitation evolution in Mg-3Nd-0.2Zn alloy. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2018, 60, 58-67. | 1.6 | 17 |
| 59 | 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. | 5.5 | 86 |
| 60 | Removing the oxide layer on the A380 substrate of AM60/A380 bimetallic castings by the zincate process followed with galvanizing. Vacuum, 2018, 148, 127-130. | 3.5 | 6 |
| 61 | CALPHAD modeling and experimental assessment of Ti-Al-Mn ternary system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2018, 63, 126-133. | 1.6 | 13 |
| 62 | Effect of heat treatment on strainâ€“controlled fatigue behavior of cast Mgâ€“Ndâ€“Znâ€“Zr alloy. Journal of Materials Science and Technology, 2018, 34, 2091-2099. | 10.7 | 17 |
| 63 | In-mold oxidation behavior of Mgâ€“4.32Yâ€“2.83Ndâ€“0.41Zr alloy. Journal of Materials Science, 2018, 53, 11091-11103. | 3.7 | 10 |
| 64 | Applications of CALPHAD modeling and databases in advanced lightweight metallic materials. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2018, 62, 1-17. | 1.6 | 68 |
| 65 | A low-cost and high-strength Ti-Al-Fe-based cast titanium alloy for structural applications. Scripta Materialia, 2018, 157, 124-128. | 5.2 | 42 |
| 66 | Interphase boundary segregation of silver and enhanced precipitation of Mg17Al12 Phase in a Mg-Al-Sn-Ag alloy. Scripta Materialia, 2018, 154, 192-196. | 5.2 | 49 |
| 67 | Study on the response of dendritic growth to periodic increaseâ€“decrease pressure in solidification via in situ observation using succinonitrile. Journal of Crystal Growth, 2018, 498, 85-92. | 1.5 | 6 |
| 68 | Microstructural, mechanical and corrosion characteristics of heat-treated Mg-1.2Zn-0.5Ca (wt%) alloy for use as resorbable bone fixation material. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 69, 203-212. | 3.1 | 70 |
| 69 | Microstructure and Mechanical Properties of High Pressure Die Cast Mgâ€“Alâ€“Snâ€“Si Alloys. Minerals, Metals and Materials Series, 2017, , 289-295. | 0.4 | 2 |
| 70 | A combined electron backscattered diffraction and visco-plastic self-consistent analysis on the anisotropic deformation behavior in a Mg-Gd-Y alloy. Materials and Design, 2017, 122, 164-171. | 7.0 | 27 |
| 71 | Fatigue characteristics of sand-cast AZ91D magnesium alloy. Journal of Magnesium and Alloys, 2017, 5, 1-12. | 11.9 | 22 |
| 72 | First conductive atomic force microscopy investigation on the oxide-film removal mechanism by chloride fluxes in aluminum brazing. Scripta Materialia, 2017, 138, 12-16. | 5.2 | 15 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | A Statistics-Based Cracking Criterion of Resin-Bonded Silica Sand for Casting Process Simulation. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2017, 48, 260-267. | 2.1 | 4 |
| 74 | A phase field model coupled with pressure-effect-embedded thermodynamic modeling for describing microstructure and microsegregation in pressurized solidification of a ternary magnesium alloy. Computational Materials Science, 2017, 136, 264-270. | 3.0 | 11 |
| 75 | The melt protection mechanism of an SO2/CO2 gas mixture for a magnesium-rare-earth based alloy. Journal of Alloys and Compounds, 2017, 722, 101-107. | 5.5 | 7 |
| 76 | Phase formations in low density high entropy alloys. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2017, 56, 19-28. | 1.6 | 38 |
| 77 | Ultra-high throughput microfluidic optomechanical sensors (Conference Presentation). , 2017, , . | | 0 |
| 78 | Fatigue Properties of Cast Magnesium Wheels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 4239-4257. | 2.2 | 12 |
| 79 | The Effect of Heat-Treatment on Mechanical, Microstructural, and Corrosion Characteristics of a Magnesium Alloy With Potential Application in Resorbable Bone Fixation Hardware. , 2016, , . | | 2 |
| 80 | Mechanical Properties and Microstructure of AZ31 Magnesium Alloy Tubes. , 2016, , 381-387. | | 0 |
| 81 | Athermal influence of pulsed electric current on the twinning behavior of Mgâ€“3Alâ€“1Zn alloy during rolling. Scripta Materialia, 2016, 114, 151-155. | 5.2 | 36 |
| 82 | Precipitation evolution and hardening in Mg Sm Zn Zr alloys. Acta Materialia, 2016, 111, 335-347. | 7.9 | 102 |
| 83 | Investigation of the non-equilibrium solidification microstructure of a Mgâ€“4Alâ€“2RE (AE42) alloy. Journal of Materials Science, 2016, 51, 6287-6294. | 3.7 | 11 |
| 84 | Enhanced rollability of Mg 3Al 1Zn alloy by pulsed electric current: a comparative study. Materials and Design, 2016, 100, 204-216. | 7.0 | 47 |
| 85 | Size Effect on Magnesium Alloy Castings. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 2686-2704. | 2.2 | 7 |
| 86 | Interface formation in magnesium/aluminium bimetallic castings with a nickel interlayer. International Journal of Cast Metals Research, 2016, 29, 338-343. | 1.0 | 14 |
| 87 | Abnormal texture development in magnesium alloy Mgâ€“3Alâ€“1Zn during large strain electroplastic rolling: Effect of pulsed electric current. International Journal of Plasticity, 2016, 87, 86-99. | 8.8 | 51 |
| 88 | Cu redistribution study during the corrosion of AZ91 using a rotating ring-disk collection experiment. Corrosion Science, 2016, 112, 760-764. | 6.6 | 26 |
| 89 | Microscopic deformation compatibility during monotonic loading in a Mg-Gd-Y alloy. Materials Characterization, 2016, 119, 195-199. | 4.4 | 17 |
| 90 | Formation of a new incoherent twin boundary in a Mgâ€“3Gd alloy. Scripta Materialia, 2016, 112, 136-139. | 5.2 | 17 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Influence of Cerium on Texture and Ductility of Magnesium Extrusions. , 2016, , 363-368. | | 6 |
| 92 | Magnesium Front End Research and Development: A Canada-China-USA Collaboration. , 2016, , 41-48. | | 5 |
| 93 | New Phases in Mg-Al-Ca System. , 2016, , 427-432. | | 1 |
| 94 | Development of Mg-Al-Sn-Si Alloys Using a Calphad Approach. , 2016, , 79-82. | | 3 |
| 95 | Numerical Modelling of Large Strain Deformation in Magnesium. , 2016, , 467-471. | | 0 |
| 96 | Computational Thermodynamics and Experimental Investigation of the Mg-Al-Ca-Sr Alloys. , 2016, , 421-425. | | 0 |
| 97 | Computational Thermodynamics and Experimental Investigation of Mg-Al-Ca Alloys. , 2016, , 415-419. | | 0 |
| 98 | Advanced lightweight materials and manufacturing processes for automotive applications. MRS Bulletin, 2015, 40, 1045-1054. | 3.5 | 117 |
| 99 | Three-Dimensional Phase-Field Simulation and Experimental Validation of Î²-Mg17Al12 Phase Precipitation in Mg-Al-Based Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 948-962. | 2.2 | 39 |
| 100 | Study on Pressurized Solidification Behavior and Microstructure Characteristics of Squeeze Casting Magnesium Alloy AZ91D. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2015, 46, 328-336. | 2.1 | 35 |
| 101 | In-situ investigation on the microstructure evolution and plasticity of two magnesium alloys during three-point bending. International Journal of Plasticity, 2015, 72, 218-232. | 8.8 | 92 |
| 102 | Hot deformation behavior and workability of pre-extruded ZK60A magnesium alloy. Transactions of Nonferrous Metals Society of China, 2015, 25, 1822-1830. | 4.2 | 11 |
| 103 | Large-scale three-dimensional phase-field simulation of multi-variant Î²-Mg17Al12 in Mgâ€“Al-based alloys. Computational Materials Science, 2015, 101, 248-254. | 3.0 | 24 |
| 104 | Fatigue strength dependence on the ultimate tensile strength and hardness in magnesium alloys. International Journal of Fatigue, 2015, 80, 468-476. | 5.7 | 50 |
| 105 | Precipitation sequence and kinetics in a Mg-4Sm-1Zn-0.4Zr (wt%) alloy. Journal of Alloys and Compounds, 2015, 649, 649-655. | 5.5 | 33 |
| 106 | Twinning behavior and lattice rotation in a Mgâ€“Gdâ€“Yâ€“Zr alloy under ballistic impact. Journal of Alloys and Compounds, 2015, 650, 622-632. | 5.5 | 33 |
| 107 | Material design and development: From classical thermodynamics to CALPHAD and ICME approaches. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2015, 50, 6-22. | 1.6 | 74 |
| 108 | Fatigue behavior and life prediction of cast magnesium alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 647, 113-126. | 5.6 | 28 |

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|---|---|---|---|
| 109 | Hot Compression Behavior of Magnesium Alloys ZE20 and AM30. , 2015, , 25-28. | | 1 |
| 110 | Simulation of Concurrent Precipitation of Two Strengthening Phases in Magnesium Alloys. , 2015, , 289-293. | | 0 |
| 111 | Precipitation Sequence in a Mg-Sm-Zn-Zr Alloy. , 2015, , 367-372. | | 0 |
| 112 | Thermodynamic modeling and experimental investigation of the magnesiumâ€“zincâ€“samarium alloys. Journal of Alloys and Compounds, 2014, 593, 71-78. | 5.5 | 23 |
| 113 | Interfacial phenomena in magnesium/aluminum bi-metallic castings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 595, 154-158. | 5.6 | 55 |
| 114 | Improved Interfacial Bonding in Magnesium/Aluminum Overcasting Systems by Aluminum Surface Treatments. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2014, 45, 2495-2503. | 2.1 | 17 |
| 115 | A novel aluminum surface treatment for improved bonding in magnesium/aluminum bimetallic castings. Scripta Materialia, 2014, 86, 52-55. | 5.2 | 47 |
| 116 | A phase field model for simulating the precipitation of multi-variant Î²-Mg17Al12 in Mgâ€“Al-based alloys. Scripta Materialia, 2013, 68, 691-694. | 5.2 | 29 |
| 117 | Magnesium casting technology for structural applications. Journal of Magnesium and Alloys, 2013, 1, 2-22. | 11.9 | 682 |
| 118 | High Cycle Fatigue of Cast Mg-3Nd-0.2Zn Magnesium Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5202-5215. | 2.2 | 33 |
| 119 | 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. | 2.2 | 28 |
| 120 | Interdiffusion and Phase Growth Kinetics in Magnesium-Aluminum Binary System. Journal of Phase Equilibria and Diffusion, 2013, 34, 104-115. | 1.4 | 56 |
| 121 | Microstructure and mechanical properties of a high ductility Mgâ€“Znâ€“Mnâ€“Ce magnesium alloy. Journal of Magnesium and Alloys, 2013, 1, 283-291. | 11.9 | 53 |
| 122 | Hot deformation behavior of as-cast Mgâ€“Znâ€“Mnâ€“Ce alloy in compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 560, 492-499. | 5.6 | 35 |
| 123 | Application of Computational Thermodynamics and Calphad in Magnesium Alloy Development. , 2013, , 3-8. | | 2 |
| 124 | Flow Behavior and Hot Workability of Pre-Extruded AZ80 Magnesium Alloy. , 2013, , 121-125. | | 0 |
| 125 | Aging Behavior and Microstructural Evolution in Mg-3Nd-0.2Zn-0.5Zr Alloy. , 2013, , 27-32. | | 0 |
| 126 | Calibrating material parameters to model the thin-walled components made of die cast AM60B magnesium alloy. International Journal of Crashworthiness, 2012, 17, 540-552. | 1.9 | 10 |

| # | Article | IF | Citations |
|---|---|---|---|
| 127 | Computational phase equilibria and experimental investigation of magnesiumâ€“aluminumâ€“calcium alloys. Intermetallics, 2012, 24, 22-29. | 3.9 | 37 |
| 128 | Improved bending fatigue and corrosion properties of a Mgâ€“Alâ€“Mn alloy by super vacuum die casting. Scripta Materialia, 2012, 67, 879-882. | 5.2 | 28 |
| 129 | Directional Solidification and Microsegregation in a Magnesium-Aluminum-Calcium Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 3239-3248. | 2.2 | 36 |
| 130 | A quantitative model for describing crystal nucleation in pressurized solidification during squeeze casting. Scripta Materialia, 2012, 66, 215-218. | 5.2 | 40 |
| 131 | Plastic flow behavior of a high-strength magnesium alloy NZ30K. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 532, 616-622. | 5.6 | 18 |
| 132 | Effect of Zn on the microstructure evolution of extruded Mgâ€“3Nd (â€“Zn)â€“Zr (wt.%) alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 543, 12-21. | 5.6 | 46 |
| 133 | Solidification Microstructure and Mechanical Properties of Cast Magnesium-Aluminum-Tin Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 360-368. | 2.2 | 70 |
| 134 | Microstructure evolution of Mg-3%Al-1%Zn alloy tube during warm bending. Journal of Materials Science, 2012, 47, 3801-3807. | 3.7 | 10 |
| 135 | Thermodynamic modeling and experimental investigation of the magnesiumâ€“neodymiumâ€“zinc alloys. Intermetallics, 2011, 19, 1720-1726. | 3.9 | 27 |
| 136 | Texture and mechanical behavior evolution of age-hardenable Mgâ€“Ndâ€“Zn extrusions during aging treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 529, 151-155. | 5.6 | 19 |
| 137 | The Solidification Microstructure and Precipitation Investigation of Magnesium-Rich Alloys Containing Zn and Ce. , 2011, , 267-270. | | 0 |
| 138 | Optimization of Magnesium-Aluminum-Tin Alloys for as-Cast Microstructure and Mechanical Properties. , 2011, , 161-165. | | 0 |
| 139 | Microstructure and Mechanical Properties of Extruded Magnesium-Aluminum-Cerium Alloy Tubes. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 2662-2674. | 2.2 | 42 |
| 140 | Microstructure and Corrosion Characterization of Squeeze Cast AM50 Magnesium Alloys. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2010, 41, 1375-1383. | 2.1 | 25 |
| 141 | Structureâ€“property relations of cyclic damage in a wrought magnesium alloy. Scripta Materialia, 2010, 63, 751-756. | 5.2 | 37 |
| 142 | AM30 porthole die extrusionsâ€”A comparison with circular seamless extruded tubes. Journal of Materials Processing Technology, 2009, 209, 6010-6020. | 6.3 | 29 |
| 143 | Effect of strain ratio and strain rate on low cycle fatigue behavior of AZ31 wrought magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 517, 334-343. | 5.6 | 141 |
| 144 | Dependence of the distribution of deformation twins on strain amplitudes in an extruded magnesium alloy after cyclic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 519, 38-45. | 5.6 | 69 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | Strain-Controlled Low-Cycle Fatigue Properties of a Newly Developed Extruded Magnesium Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 3014-3026. | 2.2 | 134 |
| 146 | Low-pressure die casting of magnesium alloy AM50: Response to process parameters. Journal of Materials Processing Technology, 2008, 205, 224-234. | 6.3 | 67 |
| 147 | Bendability of the wrought magnesium alloy AM30 tubes using a rotary draw bender. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 486, 596-601. | 5.6 | 41 |
| 148 | Influence of cerium on the texture and ductility of magnesium extrusions. Scripta Materialia, 2008, 59, 562-565. | 5.2 | 300 |
| 149 | Development and Validation of Extrusion Limit Diagram for AZ31 and AM30 Magnesium Alloys. Materials Science Forum, 2007, 546-549, 327-332. | 0.3 | 1 |
| 150 | An analysis of localized necking in aluminium alloy tubes during hydroforming using a continuum damage model. International Journal of Mechanical Sciences, 2007, 49, 200-209. | 6.7 | 28 |
| 151 | Influence of {10-12} extension twinning on the flow behavior of AZ31 Mg alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 445-446, 302-309. | 5.6 | 284 |
| 152 | The evolution of technology for materials processing over the last 50 years: The automotive example. Jom, 2007, 59, 48-57. | 1.9 | 117 |
| 153 | Development of a New Wrought Magnesium-Aluminum-Manganese Alloy AM30. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 1184-1192. | 2.2 | 88 |
| 154 | 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. | 2.2 | 61 |
| 155 | Thermodynamics modeling of the Mgâ€“Sr and Caâ€“Mgâ€“Sr systems. Journal of Alloys and Compounds, 2006, 421, 172-178. | 5.5 | 41 |
| 156 | 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. | 2.2 | 115 |
| 157 | Twinning-induced softening in polycrystalline AM30 Mg alloy at moderate temperatures. Scripta Materialia, 2006, 54, 771-775. | 5.2 | 259 |
| 158 | Aluminum Tube Hydroforming: Formability and Mechanical Properties. , 2005, , . | | 3 |
| 159 | First-Principles Investigation of Laves Phases in Mg-Al-Ca System. Materials Science Forum, 2005, 488-489, 169-176. | 0.3 | 13 |
| 160 | Development of a Moderate Temperature Bending Process for Magnesium Alloy Extrusions. Materials Science Forum, 2005, 488-489, 477-482. | 0.3 | 13 |
| 161 | Particle-Stimulated Nucleation of Dynamic Recrystallization in AZ31 Alloy at Elevated Temperatures. Materials Science Forum, 2005, 488-489, 261-264. | 0.3 | 12 |
| 162 | An experimental and numerical study of necking initiation in aluminium alloy tubes during hydroforming. International Journal of Mechanical Sciences, 2004, 46, 1727-1746. | 6.7 | 28 |

| # | Article | IF | Citations |
|---|---|---|---|
| 163 | Microstructure and fatigue properties of hydroformed aluminum alloys 6063 and 5754. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 2549-2557. | 2.2 | 9 |
| 164 | Creep resistant Mg-Al-Ca alloys: Computational thermodynamics and experimental investigation. Jom, 2003, 55, 40-44. | 1.9 | 84 |
| 165 | Recent Magnesium Alloy Development for Automotive Powertrain Applications. Materials Science Forum, 2003, 419-422, 57-66. | 0.3 | 199 |
| 166 | Magnesium: Current and potential automotive applications. Jom, 2002, 54, 42-48. | 1.9 | 330 |
| 167 | Creep and microstructure of magnesium-aluminum-calcium based alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 567-574. | 2.2 | 279 |
| 168 | Tensile Creep and Microstructure of Magnesium-Aluminum-Calcium Based Alloys for Powertrain Applications - Part 2 of 2. , 2001, , . | | 15 |
| 169 | An investigation of the properties of Mg-Zn-Al alloys. Scripta Materialia, 1998, 39, 45-53. | 5.2 | 186 |
| 170 | Inclusions in molten magnesium and potential assessment techniques. Jom, 1996, 48, 47-51. | 1.9 | 27 |
| 171 | Magnesium castings for automotive applications. Jom, 1995, 47, 28-31. | 1.9 | 72 |
| 172 | Development of Creep-Resistant Magnesium Alloys for Powertrain Applications: Part 1 of 2. , 0, , . | | 35 |
| 173 | Wrought Magnesium Alloys and Manufacturing Processes for Automotive Applications. , 0, , . | | 18 |
| 174 | Characterization of Magnesium Automotive Components Produced by Super-Vacuum Die Casting Process. Materials Science Forum, 0, 618-619, 381-386. | 0.3 | 15 |
| 175 | Mechanical and Thermophysical Properties of Magnesium Alloy Extrusions. , 0, , . | | 4 |
| 176 | Self-Pierce Riveting of Magnesium to Aluminum Alloys. SAE International Journal of Materials and Manufacturing, 0, 4, 158-165. | 0.3 | 19 |
| 177 | Magnesium Alloy Development for Automotive Applications. Materials Science Forum, 0, 706-709, 69-82. | 0.3 | 39 |
| 178 | Development of Corrosion Testing Protocols for Magnesium Alloys and Magnesium-Intensive Subassemblies. SAE International Journal of Materials and Manufacturing, 0, 6, 242-247. | 0.3 | 12 |
| 179 | Application of Computational Thermodynamics and CALPHAD in Magnesium Alloy Development. , 0, , 1-8. | | 2 |