

Jing-Huai Zhang

List of Publications by Year in descending order

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papers

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times ranked

1287
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent developments in high-strength Mg-RE-based alloys: Focusing on Mg-Gd and Mg-Y systems. <i>Journal of Magnesium and Alloys</i> , 2018, 6, 277-291.	11.9	554
2	Towards developing Mg alloys with simultaneously improved strength and corrosion resistance via RE alloying. <i>Journal of Magnesium and Alloys</i> , 2021, 9, 41-56.	11.9	217
3	Effect of Nd on the microstructure, mechanical properties and corrosion behavior of die-cast Mg-4Al-based alloy. <i>Journal of Alloys and Compounds</i> , 2008, 464, 556-564.	5.5	140
4	Toward the development of Mg alloys with simultaneously improved strength and ductility by refining grain size via the deformation process. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2021, 28, 30-45.	4.9	126
5	Effect of Ce on microstructure, mechanical properties and corrosion behavior of high-pressure die-cast Mg-4Al-based alloy. <i>Journal of Alloys and Compounds</i> , 2011, 509, 1069-1078.	5.5	101
6	Effect of substituting cerium-rich mischmetal with lanthanum on microstructure and mechanical properties of die-cast Mg-Al-RE alloys. <i>Materials & Design</i> , 2009, 30, 2372-2378.	5.1	96
7	Effect of Y and Ce on the microstructure, mechanical properties and anisotropy of as-rolled Mg-8Li-1Al alloy. <i>Journal of Materials Science and Technology</i> , 2020, 39, 124-134.	10.7	93
8	Developing a low-alloyed fine-grained Mg alloy with high strength-ductility based on dislocation evolution and grain boundary segregation. <i>Scripta Materialia</i> , 2022, 209, 114414.	5.2	91
9	New insights on the different corrosion mechanisms of Mg alloys with solute-enriched stacking faults or long period stacking ordered phase. <i>Corrosion Science</i> , 2022, 198, 110163.	6.6	91
10	Development of high mechanical properties and moderate thermal conductivity cast Mg alloy with multiple RE via heat treatment. <i>Journal of Materials Science and Technology</i> , 2018, 34, 1076-1084.	10.7	89
11	Enhanced Electromagnetic Interference Shielding in a Duplex-Phase Mg-9Li-3Al-1Zn Alloy Processed by Accumulative Roll Bonding. <i>Acta Metallurgica Sinica (English Letters)</i> , 2020, 33, 490-499.	2.9	83
12	Investigation of high-strength and superplastic Mg-Y-Gd-Zn alloy. <i>Materials & Design</i> , 2014, 61, 168-176.	5.1	76
13	Microstructures and mechanical properties of heat-resistant high-pressure die-cast Mg-4Al-xLa-0.3Mn (x=1, 2, 4, 6) alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 2527-2537.	5.6	71
14	Microstructure and mechanical properties of Mg-Gd-Dy-Zn alloy with long period stacking ordered structure or stacking faults. <i>Journal of Alloys and Compounds</i> , 2011, 509, 7717-7722.	5.5	70
15	Influence of yttrium on microstructure and mechanical properties of as-cast Mg-5Li-3Al-2Zn alloy. <i>Journal of Alloys and Compounds</i> , 2011, 509, 9045-9049.	5.5	63
16	Microstructure and high mechanical properties of Mg-9RY-4Zn (RY: Y-rich misch metal) alloy with long period stacking ordered phase. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 540, 38-45.	5.6	63
17	Influence of Zn content on the microstructure and mechanical properties of extruded Mg-5Y-4Gd-0.4Zr alloy. <i>Journal of Alloys and Compounds</i> , 2009, 481, 811-818.	5.5	60
18	Coarsening kinetics and strengthening mechanisms of core-shell nanoscale precipitates in Al-Li-Yb-Er-Sc-Zr alloy. <i>Journal of Materials Science and Technology</i> , 2021, 61, 197-203.	10.7	60

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19	Microstructure, tensile properties, and creep behavior of high-pressure die-cast Mg ₄ Al ₄ RE _{0.4} Mn (RE=Al, Ce) alloys. <i>Journal of Materials Science</i> , 2009, 44, 2046-2054.	3.7	59
20	Microstructure and mechanical properties of Mg-5Li-1Al sheets prepared by accumulative roll bonding. <i>Journal of Materials Science and Technology</i> , 2018, 34, 317-323.	10.7	59
21	Combination effects of Yb addition and cryogenic-rolling on microstructure and mechanical properties of LA141 alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 788, 139611.	5.6	56
22	Microstructure and mechanical properties of high-performance Mg ₄ Y ₄ Er ₄ Zn extruded alloy. <i>Materials & Design</i> , 2014, 54, 256-263.	5.1	52
23	Influence of the combined addition of Y and Nd on the microstructure and mechanical properties of Mg ₄ Li alloy. <i>Materials & Design</i> , 2014, 57, 245-249.	5.1	51
24	Experimental study on strengthening of Mg ₄ Li alloy by introducing long-period stacking ordered structure. <i>Scripta Materialia</i> , 2013, 68, 675-678.	5.2	50
25	Influence of Y and Nd on microstructure, texture and anisotropy of Mg ₅ Li ₁ Al alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 600, 1-7.	5.6	50
26	Effects of cryogenic treatment on microstructure and mechanical properties of AZ31 magnesium alloy rolled at different paths. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 832, 142475.	5.6	50
27	New horizon for high performance Mg-based biomaterial with uniform degradation behavior: Formation of stacking faults. <i>Scientific Reports</i> , 2015, 5, 13933.	3.3	47
28	Effect of the long periodic stacking structure and W-phase on the microstructures and mechanical properties of the Mg ₈ Gd _x Zn _{0.4} Zr alloys. <i>Materials & Design</i> , 2010, 31, 210-219.	5.1	46
29	Microstructures, mechanical properties and corrosion behavior of high-pressure die-cast Mg ₄ Al _{0.4} Mn _x Pr (x=1, 2, 4, 6) alloys. <i>Journal of Alloys and Compounds</i> , 2009, 480, 810-819.	5.5	44
30	Developing a die casting magnesium alloy with excellent mechanical performance by controlling intermetallic phase. <i>Journal of Alloys and Compounds</i> , 2019, 795, 436-445.	5.5	43
31	Effect of carbonate additive on the microstructure and corrosion resistance of plasma electrolytic oxidation coating on Mg-9Li-3Al alloy. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2022, 29, 1453-1463.	4.9	41
32	Al-Nd intermetallic phase stability and its effects on mechanical properties and corrosion resistance of HPDC Mg-4Al-4Nd-0.2Mn alloy. <i>Journal of Alloys and Compounds</i> , 2017, 691, 634-643.	5.5	39
33	Development of extruded Mg-6Er-3Y-1.5Zn-0.4Mn (wt.%) alloy with high strength at elevated temperature. <i>Journal of Materials Science and Technology</i> , 2019, 35, 2365-2374.	10.7	39
34	Modifying microstructures and tensile properties of Mg-Sm based alloy via extrusion ratio. <i>Journal of Magnesium and Alloys</i> , 2021, 9, 1098-1098.	11.9	34
35	Effect of Zn concentration on the microstructures and mechanical properties of extruded Mg ₇ Y ₄ Gd _{0.4} Zr alloys. <i>Journal of Materials Science</i> , 2009, 44, 74-83.	3.7	33
36	Microstructures and mechanical properties of heat-resistant HPDC Mg ₄ Al-based alloys containing cheap misch metal. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 2670-2677.	5.6	33

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37	Effect of Y and Ce addition on microstructures and mechanical properties of LZ91 alloys. Journal of Alloys and Compounds, 2019, 800, 72-80.	5.5	31
38	Microstructure and mechanical properties of high-strength high-pressure die-cast Mg-4Al-3La-1Ca-0.3Mn alloy. Rare Metals, 2021, 40, 2956-2963.	7.1	31
39	Microstructure and mechanical properties of ultra-lightweight Mg-Li/Al/Al-Li composite produced by accumulative roll bonding at ambient temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 787, 139494.	5.6	30
40	Characterization of elevated-temperature high strength and decent thermal conductivity extruded Mg-Er-Y-Zn alloy containing nano-spaced stacking faults. Materials Characterization, 2019, 155, 109823.	4.4	29
41	Significantly enhanced grain boundary Zn and Ca co-segregation of dilute Mg alloy via trace Sm addition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 831, 142259.	5.6	28
42	Interface behavior and tensile properties of Mg-14Li-3Al-2Gd sheets prepared by four-layer accumulative roll bonding. Journal of Manufacturing Processes, 2021, 61, 254-260.	5.9	27
43	Advances in micro-arc oxidation coatings on Mg-Li alloys. Applied Surface Science Advances, 2022, 8, 100219.	6.8	27
44	Microstructures and mechanical properties of as-cast Mg-Sm-Zn-Zr alloys with varying Gd contents. Journal of Magnesium and Alloys, 2022, 10, 1220-1234.	11.9	25
45	Microstructures and mechanical properties of a newly developed high-pressure die casting Mg-Zn-RE alloy. Journal of Materials Science and Technology, 2020, 53, 174-184.	10.7	24
46	Effect of cryogenic rolling process on microstructure and mechanical properties of Mg-14Li-1Al alloy. Materials Characterization, 2019, 157, 109903.	4.4	22
47	Microstructure and Mechanical Properties of CNT-Reinforced AZ31 Matrix Composites Prepared Using Hot-Press Sintering. Journal of Materials Engineering and Performance, 2017, 26, 5495-5500.	2.5	21
48	Corrosion behavior and mechanism of Mg-Er-Zn-Zr alloys in different states. Journal of Materials Research and Technology, 2022, 19, 30-45.	5.8	21
49	Development of High-Performance Mg Alloy via Introducing Profuse Long Period Stacking Ordered Phase and Stacking Faults. Advanced Engineering Materials, 2015, 17, 876-884.	3.5	19
50	Microstructures and mechanical properties of a high pressure die-cast Mg-4Al-4Gd-0.3Mn alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 764, 138254.	5.6	19
51	Microstructure and mechanical properties of LA51 and LA51-0.5Y alloys with different accumulated strains and rolling temperatures. Materials and Design, 2015, 85, 190-196.	7.0	18
52	Degraded and osteogenic properties of coated magnesium alloy AZ31; an experimental study. Journal of Orthopaedic Surgery and Research, 2016, 11, 30.	2.3	18
53	Effect of Sc and Zr on Microstructure and Mechanical Properties of As-Cast Al-Li-Cu Alloys. Advanced Engineering Materials, 2018, 20, 1700898.	3.5	17
54	Microstructure and mechanical properties of Mg-5Li-1Al sheets processed by cross accumulative roll bonding. Journal of Manufacturing Processes, 2019, 46, 139-146.	5.9	16

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55	Compression properties at different loading directions of as-extruded Mg-9Y-4Zn (RY: Y-rich misch) Mg-9Y-4Zn (RY: Y-rich misch) Tj ETQq1.1 0.784314 rgBT 15	5.1	15
56	Al-RE Intermetallic Phase Stability and Effects on Corrosion Behavior in Cold-Chamber HPDC AE44 Alloy. <i>Advanced Engineering Materials</i> , 2016, 18, 148-155.	3.5	15
57	Microstructure, Texture, and Mechanical Properties of Alternate λ -Mg-Li Composite Sheets Prepared by Accumulative Roll Bonding. <i>Advanced Engineering Materials</i> , 2017, 19, 1600817.	3.5	15
58	Notch tensile behavior of extruded Mg-Y-Zn alloys containing long period stacking ordered phase. <i>Materials & Design</i> , 2014, 56, 495-499.	5.1	12
59	Synergistic effect of carbon nanotube and graphene nanoplatelet addition on microstructure and mechanical properties of AZ31 prepared using hot-pressing sintering. <i>Journal of Materials Research</i> , 2018, 33, 4261-4269.	2.6	11
60	Hydrothermal Synthesis of Protective Coating on Mg Alloy for Degradable Implant Applications. <i>Coatings</i> , 2019, 9, 160.	2.6	11
61	Recent advances of electromagnetic interference shielding Mg matrix materials and their processings: A review. <i>Transactions of Nonferrous Metals Society of China</i> , 2022, 32, 1385-1404.	4.2	11
62	Development of Hot-Extruded Mg-RE-Zn Alloy Bar with High Mechanical Properties. <i>Materials</i> , 2019, 12, 1722.	2.9	10
63	Microstructure Evolution of Extruded Mg-6Gd Alloy Under 175°C and 150MPa. <i>Acta Metallurgica Sinica (English Letters)</i> , 2019, 32, 245-252.	2.9	10
64	Achieving high strength in a Mg-Li-Zn-Y alloy by λ -Mg precipitation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 846, 143272.	5.6	10
65	Microstructure and texture evolution of Mg-Li alloy during rolling. <i>International Journal of Materials Research</i> , 2014, 105, 1111-1117.	0.3	7
66	Microstructure and Mechanical Properties of Mg-8Li-(0, 1, 2)Ca-(0, 2)Gd Alloys. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 4831-4837.	2.5	7
67	An Unusual Texture Evolution in Extruded Mg-14Gd-Based Alloy during Annealing. <i>Advanced Engineering Materials</i> , 2018, 20, 1701129.	3.5	6
68	Microstructure and Mechanical Properties of Mg-14Li-3Al-2Gd Alloy Processed by Multilayer Accumulative Roll Bonding. <i>Advanced Engineering Materials</i> , 2020, 22, 1900774.	3.5	6
69	Improvement of electromagnetic shielding properties for Mg-8Li-6Y-2Zn alloy by heat treatment and hot rolling. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 17249-17257.	2.2	6
70	Microstructure and mechanical properties of Mg-14Li-1Al/MWCNTs composites prepared by electrophoretic deposition and accumulative roll bonding. <i>Journal of Manufacturing Processes</i> , 2021, 72, 431-438.	5.9	6
71	Effect of Minor Er on the Microstructure and Properties of Al-6.0Mg-0.4Mn-0.1Cr-0.1Zr Alloys. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 5709-5717.	2.5	5
72	Microstructures and corrosion resistance of three typical superlight Mg-Li alloys. <i>International Journal of Materials Research</i> , 2014, 105, 58-64.	0.3	4

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73	The Effect of Y/Er and Zn Addition on the Microstructure and Mechanical Properties of Mg-11Li Alloy. <i>Materials</i> , 2019, 12, 3066.	2.9	4
74	Effect of Li content on electromagnetic shielding effectiveness in binary Mg-Li alloys: a combined experimental and first-principles study. <i>Journal of Materials Science: Materials in Electronics</i> , 2022, 33, 3891-3900.	2.2	3
75	Grain Refinement Behavior of Accumulative Roll Bonding-Processed Mg-14Li-3Al-2Gd Alloy. <i>Journal of Materials Engineering and Performance</i> , 2022, 31, 6617-6625.	2.5	3
76	Microstructural stability of heat-resistant high-pressure die-cast Mg-4Al-4Ce alloy. <i>International Journal of Materials Research</i> , 2017, 108, 427-430.	0.3	2
77	Effect of Annealing Temperature on the Microstructure and Mechanical Properties of the Al/Mg-8Li-3Al-1Zn/Al Composite Plates Fabricated by Hot Rolling. <i>Physics of Metals and Metallography</i> , 2019, 120, 447-453.	1.0	2
78	Microstructure, Mechanical Properties and Strain Hardening Behavior of Alternative $\sqrt{2}$ Mg-Li Composite Sheets Prepared by Accumulative Roll Bonding. <i>Metals and Materials International</i> , 0, , 1.	3.4	2
79	A Novel Ordered B2 Particle Strengthened Mg-Li-Zn Alloy. <i>Advanced Engineering Materials</i> , 2022, 24, .	3.5	1