Xianhua Chen

List of Publications by Year
in descending order

69 papers	2,767 citations	172457 29 h-index	182427 51 g-index
69 all docs	69 docs citations	69 times ranked	1410 citing authors

#	Article	IF	Citations
1	A Review on Casting Magnesium Alloys: Modification of Commercial Alloys and Development of New Alloys. Journal of Materials Science and Technology, 2016, 32, 1211-1221.	10.7	400
2	Review of Mg alloy corrosion rates. Journal of Magnesium and Alloys, 2020, 8, 989-998.	11.9	212
3	Effect of Sn content on strain hardening behavior of as-extruded Mg-Sn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 713, 244-252.	5.6	115
4	Strain hardening of as-extruded Mg-xZn (xâ€‰=â€‰1, 2, 3 and 4 wt%) alloys. Journal of Materials Science and Technology, 2019, 35, 142-150.	10.7	105
5	Effect of heat treatment on strain hardening of ZK60 Mg alloy. Materials & Design, 2011, 32, 1526-1530.	5.1	103
6	Microstructure, electromagnetic shielding effectiveness and mechanical properties of Mgâ€“Znâ€“Yâ€“Zr alloys. Materials & Design, 2015, 65, 360-369.	5.1	91
7	High temperature formability of graphene nanoplatelets-AZ31 composites fabricated by stir-casting method. Journal of Magnesium and Alloys, 2016, 4, 270-277.	11.9	80
8	A review on electromagnetic shielding magnesium alloys. Journal of Magnesium and Alloys, 2021, 9, 1906-1921.	11.9	75
9	Enhanced mechanical properties of Mg-Gd-Y-Zn-Mn alloy by tailoring the morphology of long period stacking ordered phase. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 733, 267-275.	5.6	71
10	Effects of Y and Zn additions on electrical conductivity and electromagnetic shielding effectiveness of Mg-Y-Zn alloys. Journal of Materials Science and Technology, 2019, 35, 1074-1080.	10.7	67
11	Effect of Y and Ce additions on microstructure and mechanical properties of Mgâ€“Znâ€“Zr alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 644, 247-253.	5.6	65
12	Microstructure, texture, mechanical properties and electromagnetic shielding effectiveness of Mgâ€“Znâ€“Zrâ€“Ce alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 669, 259-268.	5.6	65
13	Strain hardening behavior of Mgâ€“Y alloys after extrusion process. Journal of Magnesium and Alloys, 2019, 7, 672-680.	11.9	65
14	Microstructure, electromagnetic shielding effectiveness and mechanical properties of Mgâ€“Znâ€“Cuâ€“Zr alloys. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2015, 197, 67-74.	3.5	64
15	Effect of heat treatment on electromagnetic shielding effectiveness of ZK60 magnesium alloy. Materials & Design, 2012, 42, 327-333.	5.1	63
16	The effects of Ca and Mn on the microstructure, texture and mechanical properties of Mg-4 Zn alloy. Journal of Magnesium and Alloys, 2020, , .	11.9	59
17	Microstructures and mechanical properties of nano carbides reinforced CoCrFeMnNi high entropy alloys. Journal of Alloys and Compounds, 2019, 792, 170-179.	5.5	58
18	A novel approach to melt purification of magnesium alloys. Journal of Magnesium and Alloys, 2016, 4, 8-14.	11.9	54

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19	Microstructure, mechanical properties and wear resistance of Ti particles reinforced AZ31 magnesium matrix composites. Journal of Magnesium and Alloys, 2022, 10, 2266-2279.	11.9	53
20	A new high-strength Mg-Zn-Ce-Y-Zr magnesium alloy. Journal of Alloys and Compounds, 2016, 688, 537-541.	5.5	52
21	Effect of Nd on microstructure and mechanical properties of as-extruded Mg-Y-Zr-Nd alloy. Journal of Materials Science and Technology, 2017, 33, 926-934.	10.7	52
22	Enhanced electromagnetic interference shielding in ZK60 magnesium alloy by aging precipitation. Journal of Physics and Chemistry of Solids, 2013, 74, 872-878.	4.0	47
23	Effect of micron-Ti particles on microstructure and mechanical properties of Mgâ€“3Alâ€“1Zn based composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 833, 142526.	5.6	45
24	Simultaneously improving elastic modulus and damping capacity of extruded Mg-Gd-Y-Zn-Mn alloy via alloying with Si. Journal of Alloys and Compounds, 2019, 810, 151857.	5.5	43
25	Development of a novel Mgâ€“Yâ€“Znâ€“Alâ€“Li alloy with high elastic modulus and damping capacity. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 790, 139744.	5.6	41
26	The effect of Y addition on recrystallization and mechanical properties of Mgâ€“6Znâ€“xYâ€“0.5Ceâ€“0.4Zr alloys. Vacuum, 2018, 155, 445-455.	3.5	39
27	Microstructure and mechanical properties of as-extruded and as-aged Mgâ€“Znâ€“Alâ€“Sn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 656, 165-173.	5.6	38
28	Effects of Sn addition on microstructure and mechanical properties of Mg-Zn-Al alloys. Progress in Natural Science: Materials International, 2017, 27, 695-702.	4.4	35
29	Effect of secondary phase on the electromagnetic shielding effectiveness of magnesium alloy. Scientific Reports, 2018, 8, 1625.	3.3	33
30	A simultaneous increase of elastic modulus and ductility by Al and Li additions in Mg-Gd-Zn-Zr-Ag alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 771, 138576.	5.6	27
31	New high-modulus and high-strength Mg-Gd-Ag-Mn-Ge alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 805, 140559.	5.6	27
32	A review of the design, processes, and properties of Mg-based composites. Nanotechnology Reviews, 2022, 11, 712-730.	5.8	27
33	Effect of Mn Addition on Melt Purification and Fe Tolerance in Mg Alloys. Jom, 2021, 73, 892-902.	1.9	24
34	Microstructure and compressive properties of Mgâ€“9Al composite reinforced with Ni-coated graphene nanosheets. Vacuum, 2020, 181, 109629.	3.5	23
35	Optimization in strength-ductility of heterogeneous Mg-13Gd alloy via small extrusion ratio combined with pre-aging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 833, 142540.	5.6	22
36	Work hardening behavior of Ti particle reinforced AZ91 composite prepared by spark plasma sintering. Vacuum, 2021, 183, 109833.	3.5	20

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37	Microstructure and mechanical properties with various pre-treatment and Zn content in Mg-Gd-Y-Zn alloys. Journal of Alloys and Compounds, 2020, 831, 154873.	5.5	19
38	Microstructure, texture and mechanical properties of the rolled high modulus Mg-Y-Zn-Al-Li alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 831, 142242.	5.6	19
39	Improving Strength and Electromagnetic Shielding Effectiveness of Mgâ€"Snâ€"Znâ€"Caâ€"Ce Alloy by Sn Addition. Advanced Engineering Materials, 2021, 23, 2100166.	3.5	15
40	Effects of Sm addition on electromagnetic interference shielding property of Mgâ€"Znâ€"Zr alloys. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	14
41	Effect of Sn Addition on Microstructure and Corrosion Behavior of As-Extruded Mgâ€"5Znâ€"4Al Alloy. Materials, 2019, 12, 2069.	2.9	14
42	Strain Hardening Behavior in Mgâ€"Al Alloys at Room Temperature. Advanced Engineering Materials, 2019, 21, 1801062.	3.5	14
43	A reverse design model for high-performance and low-cost magnesium alloys by machine learning. Computational Materials Science, 2022, 201, 110881.	3.0	14
44	Compressive deformation of as-extruded LPSO-containing Mg alloys at different temperatures. Journal of Materials Research and Technology, 2022, 16, 944-959.	5.8	14
45	Effect of impurity reduction on rollability of AZ31 magnesium alloy. Journal of Materials Science, 2012, 47, 514-520.	3.7	13
46	Strength improvement in ZK60 magnesium alloy induced by pre-deformation and heat treatment. Journal Wuhan University of Technology, Materials Science Edition, 2016, 31, 393-398.	1.0	13
47	Thermal conductivity and mechanical properties of Sm-containing Mg-Zn-Zr alloys. Materials Science and Technology, 2018, 34, 138-144.	1.6	13
48	Altered age-hardening behavior in the ultrafine-grained surface layer of Mg-Zn-Y-Ce-Zr alloy processed by sliding friction treatment. Journal of Materials Science and Technology, 2021, 78, 20-29.	10.7	13
49	Effect of interfacial structure on grain refinement and strength of Ti particles reinforced AZ31 composites. Vacuum, 2022, 203, 111287.	3.5	13
50	Microstructural evolution in the ultrafine-grained surface layer of Mg-Zn-Y-Ce-Zr alloy processed by sliding friction treatment. Materials Characterization, 2020, 166, 110423.	4.4	12
51	Thermal Stability and Tensile Properties of Electrodeposited Cu-Bi Alloy. Journal of Materials Engineering and Performance, 2011, 20, 481-486.	2.5	10
52	Effect of micro-alloying Ca on microstructure, texture and mechanical properties of Mgâ€"Znâ€"Yâ€"Ce alloys. Progress in Natural Science: Materials International, 2020, 30, 213-220.	4.4	10
53	Microstructure, creep behavior and corrosion resistance in the ultrafine-grained surface layer of Mg-6Zn-0.2Y-0.4Ce-0.5Zr alloy processed by surfacing friction treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 776, 138995.	5.6	10
54	Microstructure and mechanical properties of LPSO dominant Mg-2Y-Cu-TM (TM=Cu, Zn, Co, Ni) alloys. Materials Characterization, 2022, 191, 112111.	4.4	9

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55	Microstructure and Electromagnetic Shielding Properties of Mg-Zn-Ce-Y-Zr Alloys. Journal of Materials Engineering and Performance, 2018, 27, 4722-4731.	2.5	8
56	Size effect of the width of beta-Li phase on the ductility of magnesiumâ€“lithium dual-phase alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 814, 141217.	5.6	8
57	Large strain hardening of magnesium containing <i>in situ</i> nanoparticles. Nanotechnology Reviews, 2021, 10, 1018-1030.	5.8	8
58	Effect of impurity reduction on dynamic recrystallization, texture evolution and mechanical anisotropy of rolled AZ31 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138741.	5.6	7
59	First-principles study on the thermodynamic, electronic and mechanical properties of Mgâ€“Alâ€“Si ternary compounds. Journal of Materials Research and Technology, 2022, 19, 2848-2862.	5.8	7
60	Improved mechanical properties in AZ31 magnesium alloys induced by impurity reduction. Journal Wuhan University of Technology, Materials Science Edition, 2013, 28, 1207-1211.	1.0	6
61	Microstructure and Mechanical Properties of Mgâ€“6Alâ€“1Snâ€“0.3Mn Alloy Sheet Fabricated through Extrusion Combined with Rolling. Crystals, 2018, 8, 356.	2.2	6
62	Effect of Zenerâ€“Hollomon Parameter on High-Temperature Deformation Behaviors of Mgâ€“6Znâ€“1.5Yâ€“0.5Ceâ€“0.4Zr Alloy. Acta Metallurgica Sinica (English Letters), 2021, 34, 606-616.	2.9	6
63	Alloy Design Strategies of the Native Anti-corrosion Magnesium Alloy. Minerals, Metals and Materials Series, 2019, , 169-173.	0.4	4
64	Determination of ultra-trace levels of titanium in human serum using inductively coupled plasma tandem mass spectrometry based on O2/H2 reaction gas. Analytica Chimica Acta, 2021, 1165, 338564.	5.4	3
65	Corrosion of Mg Alloys. , 2022, , 46-74.		3
66	Microstructure and mechanical properties of rolled Mgâ€“Gdâ€“Znâ€“Zrâ€“Agâ€“Alâ€“Li alloys. International Journal of Materials Research, 2020, 111, 645-653.	0.3	2
67	Effect of Heat Treatment on Microstructure and Mechanical Properties of Extruded Mg-4Zn-1.5Al-2Sn Alloy. Journal of Materials Engineering and Performance, 2019, 28, 4565-4573.	2.5	0
68	Temperature Effect on Strain Hardening Behaviors of Asâ€Extruded Binary Magnesium Alloys. Advanced Engineering Materials, 2021, 23, 2001104.	3.5	0
69	Effects of Gd on the microstructure and mechanical properties of Mgâ€“Li dual-phase alloys. International Journal of Materials Research, 2020, 111, 432-438.	0.3	0