Penghuai Fu

List of Publications by Year
in descending order

41 papers	1,797 citations	279701 23 h-index	276775 41 g-index
42 all docs	42 docs citations	42 times ranked	1112 citing authors

#	Article	IF	Citations
1	Effects of extrusion and heat treatment on the mechanical properties and biocorrosion behaviors of a Mgâ€“Ndâ€“Znâ€“Zr alloy. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 7, 77-86.	1.5	195
2	Effects of heat treatments on the microstructures and mechanical properties of Mgâ€“3Ndâ€“0.2Znâ€“0.4Zr (wt.%) alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 486, 183-192.	2.6	169
3	Microstructure, mechanical properties, biocorrosion behavior, and cytotoxicity of as-extruded Mgâ€“Ndâ€“Znâ€“Zr alloy with different extrusion ratios. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 9, 153-162.	1.5	162
4	Investigation of the corrosion for Mgâ€“xGdâ€“3Yâ€“0.4Zr (x=6,8,10,12wt%) alloys in a peak-aged condition. Corrosion Science, 2008, 50, 166-177.	3.0	122
5	Microstructure evolution and mechanical properties of an ultra-high strength casting Mgâ€“15.6Gdâ€“1.8Agâ€“0.4Zr alloy. Journal of Alloys and Compounds, 2014, 615, 703-711.	2.8	103
6	Chemical composition optimization of gravity cast Mgâ€“yNdâ€“xZnâ€“Zr alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 496, 177-188.	2.6	82
7	Heat treatment and mechanical properties of a high-strength cast Mgâ€“Gdâ€“Zn alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 745-752.	2.6	75
8	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.	1.1	70
9	Low-pressure die casting of magnesium alloy AM50: Response to process parameters. Journal of Materials Processing Technology, 2008, 205, 224-234.	3.1	67
10	Fracture behavior and mechanical properties of Mgâ€“4Yâ€“2Ndâ€“1Gdâ€“0.4Zr (wt.%) alloy at room temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 486, 572-579.	2.6	52
11	Fatigue strength dependence on the ultimate tensile strength and hardness in magnesium alloys. International Journal of Fatigue, 2015, 80, 468-476.	2.8	50
12	Development of high strength sand cast Mgâ€“Gdâ€“Zn alloy by co-precipitation of the prismatic Î²â€² and Î²1 phases. Materials Characterization, 2019, 153, 157-168.	1.9	50
13	Additively manufactured biodegradable porous magnesium implants for elimination of implant-related infections: An in vitro and in vivo study. Bioactive Materials, 2022, 8, 140-152.	8.6	47
14	Effects of Sm on the grain refinement, microstructures and mechanical properties of AZ31 magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 620, 89-96.	2.6	46
15	Precipitation modification in cast Mgâ€“1Ndâ€“1Ceâ€“Zr alloy by Zn addition. Journal of Magnesium and Alloys, 2019, 7, 113-123.	5.5	44
16	Characterization of phases in a Mgâ€“6Gdâ€“4Smâ€“0.4Zr (wt.%) alloy during solution treatment. Materials Characterization, 2009, 60, 555-559.	1.9	43
17	Identification of NdH2 particles in solution-treated Mgâ€“2.5%Nd (wt.%) alloy. Journal of Alloys and Compounds, 2009, 485, 245-248.	2.8	37
18	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.	1.1	33

#	Article	IF	Citations
19	Fabrication and Biological Activity of 3D-Printed Polycaprolactone/Magnesium Porous Scaffolds for Critical Size Bone Defect Repair. ACS Biomaterials Science and Engineering, 2020, 6, 5120-5131.	2.6	31
20	Effects of Mn addition on the microstructure and mechanical properties of cast Mgâ€“9Alâ€“2Sn (wt.%) alloy. Journal of Magnesium and Alloys, 2014, 2, 27-35.	5.5	28
21	Basal slip dominant fatigue damage behavior in a cast Mg-8Gd-3Y-Zr alloy. International Journal of Fatigue, 2019, 118, 104-116.	2.8	25
22	High cycle fatigue properties of cast Mgâ€“xNdâ€“0.2Znâ€“Zr alloys. Journal of Materials Science, 2014, 49, 7105-7115.	1.7	24
23	On the production of Mg-Nd master alloy from NdFeB magnet scraps. Journal of Materials Processing Technology, 2015, 218, 57-61.	3.1	24
24	Study on the interfacial heat transfer coefficient between AZ91D magnesium alloy and silica sand. Experimental Thermal and Fluid Science, 2014, 54, 196-203.	1.5	21
25	High cycle fatigue improvement by heat-treatment for semi-continuous casting Mg96.34Gd2.5Zn1Zr0.16 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 604, 78-85.	2.6	20
26	Influence of alloying elements on hot tearing susceptibility of Mgâ€“Zn alloys based on thermodynamic calculation and experimental. Journal of Magnesium and Alloys, 2018, 6, 44-51.	5.5	20
27	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.	2.6	18
28	Influence of solution temperature on fatigue behavior of AM-SC1 cast magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 565, 250-257.	2.6	17
29	Damage morphology study of high cycle fatigued as-cast Mgâ€“3.0Ndâ€“0.2Znâ€“Zr (wt.%) alloy. Materials Characterization, 2016, 111, 93-105.	1.9	16
30	Quench sensitivity characterization of a LPSO-phase containing Mg alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 749, 291-300.	2.6	16
31	Strengthening mechanisms in solution treated Mgâ€“yNdâ€“zZnâ€“xZr alloy. Journal of Materials Science, 2013, 48, 6367-6376.	1.7	13
32	High cycle fatigue behavior of as-cast Mg96.34Gd2.5Zn1Zr0.16 alloy fabricated by semi-continuous casting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 587, 72-78.	2.6	13
33	Effects of intermediate frequency magnetic field on the solution treatment of Mgâ€“Gd alloy. Materials Letters, 2014, 123, 238-241.	1.3	13
34	Tensile crack initiation behavior of cast Mgâ€“3Ndâ€“0.2Znâ€“0.5Zr magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 673, 458-466.	2.6	12
35	A Simplified Hot-Tearing Criterion for Shape Castings Based on Temperature-Field Simulation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 5271-5280.	1.1	9
36	A study of microstructure, mechanical behavior and strengthen mechanism in the Mg-10Gd-0.2Zn-(Y)-0.4Zr alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 793, 139881.	2.6	8

#	Article	IF	Citations
37	Effects of Process Parameters on the Macrostructure of a Squeeze-Cast Mg-2.5 mass%Nd Alloy. Materials Transactions, 2009, 50, 2820-2825.	0.4	7
38	Effect of multiple thermal cycles on the microstructure evolution of GA151K alloy fabricated by laser-directed energy deposition. Additive Manufacturing, 2022, 57, 102957.	1.7	7
39	Fluidity of AZ91D and Mgâ€"3Ndâ€"0Â·2Znâ€"Zr (wt-%) magnesium alloys: response to pouring and mould temperature. International Journal of Cast Metals Research, 2013, 26, 213-219.	0.5	5
40	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.	1.1	2
41	Concurrent effects of various B additions on grain refinement, Fe intermetallics morphologies, and ductility evolution of Al-7.5Si-0.55ÂMg (A357) castÂalloy. SN Applied Sciences, 2020, 2, 1.	1.5	1