Hu Zhang

List of Publications by Year
in descending order

61 papers	2,170 citations	430874 18 h-index	233421 45 g-index
61 all docs	61 docs citations	61 times ranked	1374 citing authors

#	Article	IF	Citations
1	Selective laser melting of high strength Alâ€“Cuâ€“Mg alloys: Processing, microstructure and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 656, 47-54.	5.6	399
2	Effect of Zirconium addition on crack, microstructure and mechanical behavior of selective laser melted Al-Cu-Mg alloy. Scripta Materialia, 2017, 134, 6-10.	5.2	324
3	Selective laser melting of Al7050 powder: Melting mode transition and comparison of the characteristics between the keyhole and conduction mode. Materials and Design, 2017, 135, 257-266.	7.0	237
4	Experimental investigation on selective laser melting of 17-4PH stainless steel. Optics and Laser Technology, 2017, 87, 17-25.	4.6	173
5	Effect of Zr content on formability, microstructure and mechanical properties of selective laser melted Zr modified Al-4.24Cu-1.97Mg-0.56Mn alloys. Journal of Alloys and Compounds, 2018, 764, 977-986.	5.5	143
6	Analysis of processing parameters and characteristics of selective laser melted high strength Al-Cu-Mg alloys: From single tracks to cubic samples. Journal of Materials Processing Technology, 2018, 256, 69-77.	6.3	115
7	On the role of Zr content into Portevin-Le Chatelier (PLC) effect of selective laser melted high strength Al-Cu-Mg-Mn alloy. Materials Letters, 2019, 248, 5-7.	2.6	66
8	Microstructure, mechanical properties and strengthening mechanisms of AlCu5MnCdVA aluminum alloy fabricated by selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 759, 154-166.	5.6	65
9	A finite element model of thermal evolution in laser micro sintering. International Journal of Advanced Manufacturing Technology, 2016, 83, 1847-1859.	3.0	55
10	Contact angle evolution during selective laser melting. Materials and Design, 2018, 139, 304-313.	7.0	42
11	On the role of atmospheric oxygen into mechanical properties and fracture behavior of selective laser melted AlCu5MnCdVA. Materials and Design, 2018, 150, 18-27.	7.0	39
12	Effect of defocusing distance on laser powder bed fusion of high strength Alâ€“Cuâ€“Mgâ€“Mn alloy. Virtual and Physical Prototyping, 2020, 15, 325-339.	10.4	38
13	Characterization of Alâ€“Feâ€“Vâ€“Si heat-resistant aluminum alloy components fabricated by selective laser melting. Journal of Materials Research, 2015, 30, 1661-1669.	2.6	28
14	Selective laser melting of Al-Fe-V-Si heat-resistant aluminum alloy powder: modeling and experiments. International Journal of Advanced Manufacturing Technology, 2015, 80, 1787-1797.	3.0	28
15	Mechanisms of reactive element Y on the purification of K4169 superalloy during vacuum induction melting. International Journal of Minerals, Metallurgy and Materials, 2018, 25, 696-703.	4.9	28
16	The Portevin-Le Chatelier (PLC) effect in an Al-Cu aluminum alloy fabricated by selective laser melting. Materials Characterization, 2021, 178, 111198.	4.4	26
17	Densification behavior, microstructure evolution, and mechanical performances of selective laser melted Ti-5Al-2.5Snâ€Î± titanium alloy: Effect of laser energy input. Journal of Alloys and Compounds, 2019, 774, 1024-1035.	5.5	24
18	Effect of Holding Pressure on Microstructure and Mechanical Properties of A356 Aluminum Alloy. Journal of Materials Engineering and Performance, 2018, 27, 483-491.	2.5	18

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19	Mechanical behavior and microstructure evolution of Al-Cu-Mg alloy produced by laser powder bed fusion: Effect of heat treatment. Materials Characterization, 2020, 165, 110364.	4.4	18
20	Microstructural Evolution and Mechanical Behaviors of an Nb-16Si-22Ti-2Al-2Hf Alloy with 2 and 17Âat.Âpct Cr Additions at Room and/or High Temperatures. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 4842-4850.	2.2	16
21	Evolution of carbides on surface of carburized M50NiL bearing steel. Journal of Iron and Steel Research International, 2018, 25, 1198-1211.	2.8	16
22	High-Temperature Wettability and Interactions between Y-Containing Ni-Based Alloys and Various Oxide Ceramics. Materials, 2018, 11, 749.	2.9	15
23	Cracking criterion for high strength Alâ€“Cu alloys fabricated by selective laser melting. Additive Manufacturing, 2021, 37, 101709.	3.0	14
24	A high strength Alâ€“Li alloy produced by laser powder bed fusion: Densification, microstructure, and mechanical properties. Additive Manufacturing, 2020, 35, 101346.	3.0	13
25	High-temperature oxidation behavior of Nbâ€“Si-based alloy with separate vanadium, tantalum, tungsten and zirconium addition. Rare Metals, 2021, 40, 607-615.	7.1	13
26	Top surface roughness evolution during selective laser melting of AlCu5MnCdVA aluminum alloy. Journal of Manufacturing Processes, 2021, 64, 1180-1195.	5.9	13
27	Energy Density Dependence of Bonding Characteristics of Selective Laser-Melted Nbâ€“Si-Based Alloy on Titanium Substrate. Acta Metallurgica Sinica (English Letters), 2018, 31, 477-486.	2.9	12
28	Oxidation behavior of Nbâ€“24Tiâ€“18Siâ€“2Alâ€“2Hfâ€“4Cr and Nbâ€“24Tiâ€“18Siâ€“2Alâ€“2Hfâ€“8Cr hypereutectic alloys at 1250ÂÂ°C. Rare Metals, 2017, 36, 168-173.	7.1	11
29	Microstructure, cracking behavior and control of Alâ€“Feâ€“Vâ€“Si alloy produced by selective laser melting. Rare Metals, 2023, 42, 1353-1362.	7.1	11
30	High strength Alâ€“Li alloy development for laser powder bed fusion. Additive Manufacturing, 2021, 47, 102249.	3.0	11
31	High temperature tensile properties of directionally solidified Ni-43Ti-4Al-2Nb-2Hf alloy. Rare Metals, 2012, 31, 328-331.	7.1	9
32	Evolution of microstructure and mechanical properties of A356 aluminium alloy processed by hot spinning process. China Foundry, 2017, 14, 138-144.	1.4	9
33	Mechanism of yttrium in deep desulfurization of NiCoCrAlY alloy during vacuum induction melting process. Rare Metals, 2022, 41, 218-225.	7.1	9
34	Multi-Refinement Effect of Rare Earth Lanthanum on Î±-Al and Eutectic Si Phase in Hypoeutectic Al-7Si Alloy. Metals, 2020, 10, 621.	2.3	9
35	Fabrication and heat treatment of high strength Al-Cu-Mg alloy processed using selective laser melting. Proceedings of SPIE, 2016, , .	0.8	8
36	Cooling Rate Sensitivity of RE-Containing Grain Refiner and Its Impact on the Microstructure and Mechanical Properties of A356 Alloy. Acta Metallurgica Sinica (English Letters), 2016, 29, 414-421.	2.9	8

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37	Aging responses of an Al-Cu alloy fabricated by selective laser melting. Additive Manufacturing, 2021, 37, 101635.	3.0	8
38	Effect of casting temperature on microstructure in a directionally solidified Ni-44Ti-5Al-2Nb-1Mo alloy. Rare Metals, 2011, 30, 349-353.	7.1	7
39	Improved mechanical properties of Ni-rich Ni3Al coatings produced by EB-PVD for repairing single crystal blades. Rare Metals, 2017, 36, 556-561.	7.1	7
40	Fracture Mode Transition in Nbâ€“1Si Alloys Triggered by Annealing Heat Treatment. Advanced Engineering Materials, 2017, 19, 1700442.	3.5	7
41	Microstructure and High-Temperature Oxidation Behavior of Dy-Doped Nbâ€“Si-Based Alloys. Acta Metallurgica Sinica (English Letters), 2018, 31, 742-752.	2.9	7
42	Quantitative Relationship Analysis of Mechanical Properties with Mg Content and Heat Treatment Parameters in Alâ€“7Si Alloys Using Artificial Neural Network. Materials, 2019, 12, 718.	2.9	7
43	Microstructural characteristics of directionally solidified Ni-43Ti-4Al-2Nb-2Hf alloy. Rare Metals, 2011, 30, 340-344.	7.1	6
44	Microstructure evolution of Ti-47Al-2Cr-2Nb alloy in the liquid-metal-cooling (LMC) directional-solidification process. Journal Wuhan University of Technology, Materials Science Edition, 2011, 26, 197-201.	1.0	6
45	Behavior and Mechanism of High-Temperature Stability between Tial-Based Alloy and Y2O3-Al2O3 Composite Crucibles. Materials, 2018, 11, 1107.	2.9	5
46	Microstructural evolution of a PM TiAl alloy during heat treatment in Î±+Î³ phase field. Rare Metals, 2012, 31, 424-429.	7.1	4
47	Microstructure evolution of directionally solidified Niâ€“43Tiâ€“7Al alloy during heat treatment. Journal of Materials Science, 2013, 48, 2176-2187.	3.7	4
48	Microstructure Evolution in Nb-12Si-22Ti-14Cr-2Al2Hf Alloy Fabricated by Directional Solidification. High Temperature Materials and Processes, 2014, 33, 495-498.	1.4	4
49	Microstructural characterization in 7 at% Al-containing NiTi-based alloys. Rare Metals, 2014, 33, 534-540.	7.1	4
50	Effect of Open Porosity of Y2O3 Ceramic on the Apparent Contact Angles and Interactions Between Ti47Al Alloys and Y2O3 Ceramic. Acta Metallurgica Sinica (English Letters), 2017, 30, 456-463.	2.9	4
51	Effect of Trace O Element on High-temperature Wettability Between Ni3Al Melt and Y2O3 Ceramic. Acta Metallurgica Sinica (English Letters), 2018, 31, 552-560.	2.9	4
52	Microstructures and high-temperature oxidation behavior of directionally solidified Nbâ€“Si-based alloys with Re additions. Rare Metals, 2023, 42, 273-280.	7.1	3
53	Microstructure and Corrosion Characterization of Cr Film on Carburized CSS-42L Aerospace Bearing Steel by Filtered Cathodic Vacuum Arc Deposition. Coatings, 2018, 8, 313.	2.6	3
54	Effect of holding pressure on density and cooling rate of cast Al-Si alloy during additive pressure casting. China Foundry, 2019, 16, 363-370.	1.4	3

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55	Effect of La addition on microstructure and mechanical properties of hypoeutectic Al-7Si aluminum alloy. China Foundry, 2021, 18, 481-487.	1.4	3
56	Effect of the Initial Texture, Recrystallization and Re-Dissolution Process on the Evolution of Texture during Solution Treatment of the 7A65 Hot Rolled Plate. Metals, 2022, 12, 8.	2.3	3
57	Microstructure and Mechanical Property Optimization of NiTiAl-based Alloys: Directional Solidification in Novel Ceramic Crucibles. High Temperature Materials and Processes, 2013, 32, 353-358.	1.4	2
58	Microstructural refinement and enhanced mechanical properties of suction-cast NiTi-Al alloy for structural use. Rare Metals, 2015, , 1.	7.1	2
59	Surface Remeltingâ€Mediated Improvement in Oxidation Resistance of Cr₂Nbâ€Containing Nbâ€Siâ€Based Alloys at High Temperatures. Advanced Engineering Materials, 2019, 21, 1900425.	3.5	2
60	Microstructural evolution of Tiâ€“47Alâ€“2Crâ€“2Nbâ€“0.8B alloy prepared by semi-solid process. Rare Metals, 2020, 39, 1262-1266.	7.1	2
61	Effect of Heat Treatments on Phase Transformation and Tensile Properties in Cast Ti-47Al-2Cr-2Nb Alloy. High Temperature Materials and Processes, 2012, 31, .	1.4	0