

# Hu Zhang

## List of Publications by Year in descending order

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61  
papers

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docs citations

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#	ARTICLE	IF	CITATIONS
1	Microstructures and high-temperature oxidation behavior of directionally solidified Nb-Si-based alloys with Re additions. <i>Rare Metals</i> , 2023, 42, 273-280.	7.1	3
2	Microstructure, cracking behavior and control of Al-Fe-V-Si alloy produced by selective laser melting. <i>Rare Metals</i> , 2023, 42, 1353-1362.	7.1	11
3	Mechanism of yttrium in deep desulfurization of NiCoCrAlY alloy during vacuum induction melting process. <i>Rare Metals</i> , 2022, 41, 218-225.	7.1	9
4	Effect of the Initial Texture, Recrystallization and Re-Dissolution Process on the Evolution of Texture during Solution Treatment of the 7A65 Hot Rolled Plate. <i>Metals</i> , 2022, 12, 8.	2.3	3
5	High-temperature oxidation behavior of Nb-Si-based alloy with separate vanadium, tantalum, tungsten and zirconium addition. <i>Rare Metals</i> , 2021, 40, 607-615.	7.1	13
6	Cracking criterion for high strength Al-Cu alloys fabricated by selective laser melting. <i>Additive Manufacturing</i> , 2021, 37, 101709.	3.0	14
7	Aging responses of an Al-Cu alloy fabricated by selective laser melting. <i>Additive Manufacturing</i> , 2021, 37, 101635.	3.0	8
8	Top surface roughness evolution during selective laser melting of AlCu5MnCdVA aluminum alloy. <i>Journal of Manufacturing Processes</i> , 2021, 64, 1180-1195.	5.9	13
9	The Portevin-Le Chatelier (PLC) effect in an Al-Cu aluminum alloy fabricated by selective laser melting. <i>Materials Characterization</i> , 2021, 178, 111198.	4.4	26
10	High strength Al-Li alloy development for laser powder bed fusion. <i>Additive Manufacturing</i> , 2021, 47, 102249.	3.0	11
11	Effect of La addition on microstructure and mechanical properties of hypoeutectic Al-7Si aluminum alloy. <i>China Foundry</i> , 2021, 18, 481-487.	1.4	3
12	Effect of defocusing distance on laser powder bed fusion of high strength Al-Cu-Mg-Mn alloy. <i>Virtual and Physical Prototyping</i> , 2020, 15, 325-339.	10.4	38
13	Multi-Refinement Effect of Rare Earth Lanthanum on $\alpha$ -Al and Eutectic Si Phase in Hypoeutectic Al-7Si Alloy. <i>Metals</i> , 2020, 10, 621.	2.3	9
14	A high strength Al-Li alloy produced by laser powder bed fusion: Densification, microstructure, and mechanical properties. <i>Additive Manufacturing</i> , 2020, 35, 101346.	3.0	13
15	Mechanical behavior and microstructure evolution of Al-Cu-Mg alloy produced by laser powder bed fusion: Effect of heat treatment. <i>Materials Characterization</i> , 2020, 165, 110364.	4.4	18
16	Microstructural evolution of Ti-47Al-2Cr-2Nb-0.8B alloy prepared by semi-solid process. <i>Rare Metals</i> , 2020, 39, 1262-1266.	7.1	2
17	Surface Remelting-Mediated Improvement in Oxidation Resistance of Cr <sub>2</sub> Nb-Containing Nb-Si-Based Alloys at High Temperatures. <i>Advanced Engineering Materials</i> , 2019, 21, 1900425.	3.5	2
18	Microstructure, mechanical properties and strengthening mechanisms of AlCu5MnCdVA aluminum alloy fabricated by selective laser melting. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 759, 154-166.	5.6	65

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19	Quantitative Relationship Analysis of Mechanical Properties with Mg Content and Heat Treatment Parameters in Al–Si Alloys Using Artificial Neural Network. <i>Materials</i> , 2019, 12, 718.	2.9	7
20	On the role of Zr content into Portevin-Le Chatelier (PLC) effect of selective laser melted high strength Al-Cu-Mg-Mn alloy. <i>Materials Letters</i> , 2019, 248, 5-7.	2.6	66
21	Effect of holding pressure on density and cooling rate of cast Al-Si alloy during additive pressure casting. <i>China Foundry</i> , 2019, 16, 363-370.	1.4	3
22	Densification behavior, microstructure evolution, and mechanical performances of selective laser melted Ti-5Al-2.5Sn titanium alloy: Effect of laser energy input. <i>Journal of Alloys and Compounds</i> , 2019, 774, 1024-1035.	5.5	24
23	Effect of Holding Pressure on Microstructure and Mechanical Properties of A356 Aluminum Alloy. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 483-491.	2.5	18
24	On the role of atmospheric oxygen into mechanical properties and fracture behavior of selective laser melted AlCu5MnCdVA. <i>Materials and Design</i> , 2018, 150, 18-27.	7.0	39
25	Analysis of processing parameters and characteristics of selective laser melted high strength Al-Cu-Mg alloys: From single tracks to cubic samples. <i>Journal of Materials Processing Technology</i> , 2018, 256, 69-77.	6.3	115
26	Microstructure and High-Temperature Oxidation Behavior of Dy-Doped Nb–Si-Based Alloys. <i>Acta Metallurgica Sinica (English Letters)</i> , 2018, 31, 742-752.	2.9	7
27	Energy Density Dependence of Bonding Characteristics of Selective Laser-Melted Nb–Si-Based Alloy on Titanium Substrate. <i>Acta Metallurgica Sinica (English Letters)</i> , 2018, 31, 477-486.	2.9	12
28	Contact angle evolution during selective laser melting. <i>Materials and Design</i> , 2018, 139, 304-313.	7.0	42
29	Effect of Trace O Element on High-temperature Wettability Between Ni3Al Melt and Y2O3 Ceramic. <i>Acta Metallurgica Sinica (English Letters)</i> , 2018, 31, 552-560.	2.9	4
30	Microstructure and Corrosion Characterization of Cr Film on Carburized CSS-42L Aerospace Bearing Steel by Filtered Cathodic Vacuum Arc Deposition. <i>Coatings</i> , 2018, 8, 313.	2.6	3
31	Evolution of carbides on surface of carburized M50NiL bearing steel. <i>Journal of Iron and Steel Research International</i> , 2018, 25, 1198-1211.	2.8	16
32	Mechanisms of reactive element Y on the purification of K4169 superalloy during vacuum induction melting. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2018, 25, 696-703.	4.9	28
33	Behavior and Mechanism of High-Temperature Stability between TiAl-Based Alloy and Y2O3-Al2O3 Composite Crucibles. <i>Materials</i> , 2018, 11, 1107.	2.9	5
34	High-Temperature Wettability and Interactions between Y-Containing Ni-Based Alloys and Various Oxide Ceramics. <i>Materials</i> , 2018, 11, 749.	2.9	15
35	Effect of Zr content on formability, microstructure and mechanical properties of selective laser melted Zr modified Al-4.24Cu-1.97Mg-0.56Mn alloys. <i>Journal of Alloys and Compounds</i> , 2018, 764, 977-986.	5.5	143
36	Improved mechanical properties of Ni-rich Ni3Al coatings produced by EB-PVD for repairing single crystal blades. <i>Rare Metals</i> , 2017, 36, 556-561.	7.1	7

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37	Oxidation behavior of Nb-24Ti-18Si-2Al-2Hf-4Cr and Nb-24Ti-18Si-2Al-2Hf-8Cr hypereutectic alloys at 1250°C. <i>Rare Metals</i> , 2017, 36, 168-173.	7.1	11
38	Evolution of microstructure and mechanical properties of A356 aluminium alloy processed by hot spinning process. <i>China Foundry</i> , 2017, 14, 138-144.	1.4	9
39	Effect of Zirconium addition on crack, microstructure and mechanical behavior of selective laser melted Al-Cu-Mg alloy. <i>Scripta Materialia</i> , 2017, 134, 6-10.	5.2	324
40	Selective laser melting of Al7050 powder: Melting mode transition and comparison of the characteristics between the keyhole and conduction mode. <i>Materials and Design</i> , 2017, 135, 257-266.	7.0	237
41	Fracture Mode Transition in Nb-1Si Alloys Triggered by Annealing Heat Treatment. <i>Advanced Engineering Materials</i> , 2017, 19, 1700442.	3.5	7
42	Effect of Open Porosity of Y2O3 Ceramic on the Apparent Contact Angles and Interactions Between Ti47Al Alloys and Y2O3 Ceramic. <i>Acta Metallurgica Sinica (English Letters)</i> , 2017, 30, 456-463.	2.9	4
43	Experimental investigation on selective laser melting of 17-4PH stainless steel. <i>Optics and Laser Technology</i> , 2017, 87, 17-25.	4.6	173
44	Fabrication and heat treatment of high strength Al-Cu-Mg alloy processed using selective laser melting. <i>Proceedings of SPIE</i> , 2016, , .	0.8	8
45	Cooling Rate Sensitivity of RE-Containing Grain Refiner and Its Impact on the Microstructure and Mechanical Properties of A356 Alloy. <i>Acta Metallurgica Sinica (English Letters)</i> , 2016, 29, 414-421.	2.9	8
46	Selective laser melting of high strength Al-Cu-Mg alloys: Processing, microstructure and mechanical properties. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 656, 47-54.	5.6	399
47	A finite element model of thermal evolution in laser micro sintering. <i>International Journal of Advanced Manufacturing Technology</i> , 2016, 83, 1847-1859.	3.0	55
48	Characterization of Al-Fe-V-Si heat-resistant aluminum alloy components fabricated by selective laser melting. <i>Journal of Materials Research</i> , 2015, 30, 1661-1669.	2.6	28
49	Microstructural refinement and enhanced mechanical properties of suction-cast NiTi-Al alloy for structural use. <i>Rare Metals</i> , 2015, , 1.	7.1	2
50	Selective laser melting of Al-Fe-V-Si heat-resistant aluminum alloy powder: modeling and experiments. <i>International Journal of Advanced Manufacturing Technology</i> , 2015, 80, 1787-1797.	3.0	28
51	Microstructure Evolution in Nb-12Si-22Ti-14Cr-2Al-2Hf Alloy Fabricated by Directional Solidification. <i>High Temperature Materials and Processes</i> , 2014, 33, 495-498.	1.4	4
52	Microstructural characterization in 7 at% Al-containing NiTi-based alloys. <i>Rare Metals</i> , 2014, 33, 534-540.	7.1	4
53	Microstructural Evolution and Mechanical Behaviors of an Nb-16Si-22Ti-2Al-2Hf Alloy with 2 and 17 at.% Cr Additions at Room and/or High Temperatures. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 4842-4850.	2.2	16
54	Microstructure evolution of directionally solidified Ni-43Ti-7Al alloy during heat treatment. <i>Journal of Materials Science</i> , 2013, 48, 2176-2187.	3.7	4

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55	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
56	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
57	High temperature tensile properties of directionally solidified Ni-43Ti-4Al-2Nb-2Hf alloy. Rare Metals, 2012, 31, 328-331.	7.1	9
58	Microstructural evolution of a PM TiAl alloy during heat treatment in $\beta+\beta'$ phase field. Rare Metals, 2012, 31, 424-429.	7.1	4
59	Microstructural characteristics of directionally solidified Ni-43Ti-4Al-2Nb-2Hf alloy. Rare Metals, 2011, 30, 340-344.	7.1	6
60	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
61	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