Xinhua Wu

List of Publications by Year
in descending order

82 papers	6,302 citations	94433 37 h-index	69250 77 g-index
82 all docs	82 docs citations	82 times ranked	3921 citing authors

#	Article	IF	Citations
1	Effect of solution heat treatment and hot isostatic pressing on the microstructure and mechanical properties of Hastelloy X manufactured by electron beam powder bed fusion. Journal of Materials Science and Technology, 2022, 98, 99-117.	10.7	33
2	Origin of non-uniform plasticity in a high-strength Al-Mn-Sc based alloy produced by laser powder bed fusion. Journal of Materials Science and Technology, 2022, 103, 121-133.	10.7	22
3	Characterisation of the multiple effects of Sc/Zr elements in selective laser melted Al alloy. Materials Characterization, 2022, 183, 111653.	4.4	12
4	On the complex intermetallics in an Al-Mn-Sc based alloy produced by laser powder bed fusion. Journal of Alloys and Compounds, 2022, 901, 163571.	5.5	6
5	Review of high-strength aluminium alloys for additive manufacturing by laser powder bed fusion. Materials and Design, 2022, 219, 110779.	7.0	94
6	In-situ formed graded microstructure and mechanical property of selective laser melted 15â€“5ÂPH stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 847, 143340.	5.6	9
7	Microstructure, mechanical behaviour and strengthening mechanisms in Hastelloy X manufactured by electron beam and laser beam powder bed fusion. Journal of Alloys and Compounds, 2021, 862, 158034.	5.5	21
8	Effect of Deformation Reduction on Microstructure, Texture, and Mechanical Properties of Forged Ti-6Al-4V. Journal of Materials Engineering and Performance, 2021, 30, 1147-1156.	2.5	7
9	Review of laser powder bed fusion (LPBF) fabricated Ti-6Al-4V: process, post-process treatment, microstructure, and property. Light Advanced Manufacturing, 2021, 2, 1.	5.1	35
10	Process variation in Laser Powder Bed Fusion of Ti-6Al-4V. Additive Manufacturing, 2021, 41, 101987.	3.0	5
11	Isotropic and improved tensile properties of Ti-6Al-4V achieved by in-situ rolling in direct energy deposition. Additive Manufacturing, 2021, 46, 102151.	3.0	8
12	On the role of cooling rate and temperature in forming twinned Î±â€™ martensite in Tiâ€“6Alâ€“4V. Journal of Alloys and Compounds, 2020, 813, 152247.	5.5	30
13	A strong and ductile Ti-3Al-8V-6Cr-4Mo-4Zr (Beta-C) alloy achieved by introducing trace carbon addition and cold work. Scripta Materialia, 2020, 178, 124-128.	5.2	24
14	Melt pool morphology and surface roughness relationship for direct metal laser solidification of Hastelloy X. Rapid Prototyping Journal, 2020, 26, 1389-1399.	3.2	8
15	Influence of Gas Flow Speed on Laser Plume Attenuation and Powder Bed Particle Pickup in Laser Powder Bed Fusion. Jom, 2020, 72, 1039-1051.	1.9	35
16	Precipitation kinetics, microstructure evolution and mechanical behavior of a developed Alâ€“Mnâ€“Sc alloy fabricated by selective laser melting. Acta Materialia, 2020, 193, 239-251.	7.9	116
17	Process variation in Selective Laser Melting of Ti-6Al-4V alloy. MATEC Web of Conferences, 2020, 321, 03024.	0.2	1
18	Selective laser melted Al-7Si-0.6Mg alloy with in-situ precipitation via platform heating for residual strain removal. Materials and Design, 2019, 182, 108005.	7.0	52

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19	Improving fatigue performances of selective laser melted Al-7Si-0.6Mg alloy via defects control. International Journal of Fatigue, 2019, 129, 105215.	5.7	25
20	Static coarsening behaviour of lamellar microstructure in selective laser melted Tiâ€“6Alâ€“4V. Journal of Materials Science and Technology, 2019, 35, 1578-1586.	10.7	48
21	Selective laser melting of a high strength Al Mn Sc alloy: Alloy design and strengthening mechanisms. Acta Materialia, 2019, 171, 108-118.	7.9	307
22	Towards a high strength aluminium alloy development methodology for selective laser melting. Materials and Design, 2019, 174, 107775.	7.0	102
23	The processing and heat treatment of selective laser melted Al-7Si-0.6Mg alloy. , 2019, , 143-161.		1
24	Aluminum alloys for selective laser melting â€“ towards improved performance. , 2019, , 301-325.		16
25	The Effects of Selective Laser Melting Process Parameters on Relative Density of the AlSi10Mg Parts and Suitable Procedures of the Archimedes Method. Applied Sciences (Switzerland), 2019, 9, 583.	2.5	71
26	Experimental and statistical analysis on process parameters and surface roughness relationship for selective laser melting of Hastelloy X. Rapid Prototyping Journal, 2019, 25, 1309-1318.	3.2	9
27	Investigation of the structure and mechanical properties of additively manufactured Ti-6Al-4V biomedical scaffolds designed with a Schwartz primitive unit-cell. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 745, 195-202.	5.6	101
28	Multiple precipitation pathways in an Al-7Si-0.6Mg alloy fabricated by selective laser melting. Scripta Materialia, 2019, 160, 66-69.	5.2	55
29	Surface roughness of Selective Laser Melted Ti-6Al-4V alloy components. Additive Manufacturing, 2018, 21, 91-103.	3.0	106
30	Novel implant for peri-prosthetic proximal tibia fractures. Injury, 2018, 49, 705-711.	1.7	3
31	Characterisation of AlScZr and AlErZr alloys processed by rapid laser melting. Scripta Materialia, 2018, 151, 42-46.	5.2	34
32	Role of martensite decomposition in tensile properties of selective laser melted Ti-6Al-4V. Journal of Alloys and Compounds, 2018, 744, 357-363.	5.5	190
33	Porosity formation mechanisms and fatigue response in Al-Si-Mg alloys made by selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 712, 166-174.	5.6	186
34	Columnar to equiaxed transition in Al-Mg(-Sc)-Zr alloys produced by selective laser melting. Scripta Materialia, 2018, 145, 113-117.	5.2	247
35	Effect of heat treatment on the microstructure and anisotropy in mechanical properties of A357 alloy produced by selective laser melting. Materials and Design, 2018, 154, 275-290.	7.0	156
36	Effect of stiffness anisotropy on topology optimisation of additively manufactured structures. Engineering Structures, 2018, 171, 842-848.	5.3	21

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37	Mechanical Properties and In Vitro Behavior of Additively Manufactured and Functionally Graded Ti6Al4V Porous Scaffolds. Metals, 2018, 8, 200.	2.3	110
38	Effect of hot isostatic pressing on the microstructure and mechanical properties of additive manufactured AlxCoCrFeNi high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 733, 59-70.	5.6	109
39	Effect of platform temperature on the porosity, microstructure and mechanical properties of an Alâ€“Mgâ€“Scâ€“Zr alloy fabricated by selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 732, 41-52.	5.6	122
40	Effects of microtexture and Ti3Al (Î±2) precipitates on stress-corrosion cracking properties of a Ti-8Al-1Mo-1V alloy. Corrosion Science, 2017, 116, 22-33.	6.6	27
41	Effect of minor alloying elements on crack-formation characteristics of Hastelloy-X manufactured by selective laser melting. Additive Manufacturing, 2017, 16, 65-72.	3.0	95
42	Axisymmetric structural optimization design and void control for selective laser melting. Structural and Multidisciplinary Optimization, 2017, 56, 1027-1043.	3.5	8
43	The mechanism of aqueous stress-corrosion cracking of Î± + Î² titanium alloys. Corrosion Science, 2017, 125, 29-39.	6.6	36
44	Characterisation of a novel Sc and Zr modified Alâ€“Mg alloy fabricated by selective laser melting. Materials Letters, 2017, 196, 347-350.	2.6	89
45	Direct laser deposition cladding of Al CoCrFeNi high entropy alloys on a high-temperature stainless steel. Surface and Coatings Technology, 2017, 332, 440-451.	4.8	123
46	Defect, Microstructure, and Mechanical Property of Ti-6Al-4V Alloy Fabricated by High-Power Selective Laser Melting. Jom, 2017, 69, 2684-2692.	1.9	83
47	The origins for tensile properties of selective laser melted aluminium alloy A357. Additive Manufacturing, 2017, 17, 113-122.	3.0	66
48	Comparative study of commercially pure titanium produced by laser engineered net shaping, selective laser melting and casting processes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 705, 385-393.	5.6	176
49	Optimisation of selective laser melting parameters for the Ni-based superalloy IN-738 LC using Doehlertâ€™s design. Rapid Prototyping Journal, 2017, 23, 881-892.	3.2	61
50	Influences of processing parameters on surface roughness of Hastelloy X produced by selective laser melting. Additive Manufacturing, 2017, 13, 103-112.	3.0	197
51	Evolution of microstructure, mechanical and corrosion properties of AlCoCrFeNi high-entropy alloy prepared by direct laser fabrication. Journal of Alloys and Compounds, 2017, 694, 971-981.	5.5	196
52	Influence of post heat treatments on anisotropy of mechanical behaviour and microstructure of Hastelloy-X parts produced by selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 667, 42-53.	5.6	204
53	The influence of processing parameters on aluminium alloy A357 manufactured by Selective Laser Melting. Materials and Design, 2016, 109, 334-346.	7.0	269
54	Implementing a structural continuity constraint and a halting method for the topology optimization of energy absorbers. Structural and Multidisciplinary Optimization, 2016, 54, 429-448.	3.5	6

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55	Investigation on the Microstructure of Direct Laser Additive Manufactured Ti6Al4V Alloy. Materials Research, 2015, 18, 24-28.	1.3	20
56	Comparative study of the microstructures and mechanical properties of direct laser fabricated and arc-melted Al x CoCrFeNi high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 633, 184-193.	5.6	250
57	Microstructure and Texture Evolution in Double-Cone Samples of Ti-6Al-4V Alloy with Colony Preform Microstructure. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 5989-6002.	2.2	1
58	High cycle fatigue and fracture behaviour of a hot isostatically pressed nickel-based superalloy. Philosophical Magazine, 2014, 94, 242-264.	1.6	18
59	In Situ Synchrotron Studies of Reversible and Irreversible Non-elastic Strain in a Two-Phase TiAl Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 607-618.	2.2	3
60	On the Role of C Addition on Î± Precipitation in a Î² Titanium Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 1089-1095.	2.2	6
61	Characterization of a laser-fabricated hypereutectic Alâ€“Sc alloy bar. Scripta Materialia, 2014, 87, 13-16.	5.2	35
62	The effect of HIPping pressure on phase transformations in Tiâ€“5Alâ€“5Moâ€“5Vâ€“3Cr. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 598, 207-216.	5.6	13
63	Effect of heat treatment on microstructure and mechanical properties of laser deposited Ti60A alloy. Journal of Alloys and Compounds, 2014, 585, 220-228.	5.5	27
64	Influence of heat treatment on microstructure and tensile behavior of a hot isostatically pressed nickel-based superalloy. Journal of Alloys and Compounds, 2013, 578, 454-464.	5.5	71
65	The formation of grain boundary gamma during cooling of Ti46Al8Nb. Intermetallics, 2009, 17, 285-290.	3.9	11
66	Oxidation-induced embrittlement of TiAl alloys. Intermetallics, 2009, 17, 540-552.	3.9	51
67	Factors Influencing the Return to Equilibrium of Quenched Beta Ti Alloys and of Massively Transformed TiAl-Based Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 1480-1485.	2.2	2
68	Direct laser fabrication of Ti6Al4V/TiB. Journal of Materials Processing Technology, 2008, 195, 321-326.	6.3	72
69	The influence of interrupted cooling on the massive transformation in Ti46Al8Nb. Intermetallics, 2007, 15, 1147-1155.	3.9	25
70	The influence of pressure on solid-state transformations in Tiâ€“46Alâ€“8Nb. Scripta Materialia, 2007, 56, 253-256.	5.2	15
71	Microstructural study of pre-yielding and pre-yield cracking in TiAl-based alloys. Intermetallics, 2006, 14, 91-101.	3.9	8
72	Pre-yielding and pre-yield cracking in TiAl-based alloys. Intermetallics, 2006, 14, 82-90.	3.9	31

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73	Review of alloy and process development of TiAl alloys. Intermetallics, 2006, 14, 1114-1122.	3.9	806
74	The role of oxygen content and cooling rate on transformations in TiAl-based alloys. Intermetallics, 2006, 14, 838-847.	3.9	23
75	Analytical electron microscopy of C-free and C-containing Tiâ€“15â€“3. Acta Materialia, 2006, 54, 5433-5448.	7.9	50
76	Microstructure study of direct laser fabricated Ti alloys using powder and wire. Applied Surface Science, 2006, 253, 1424-1430.	6.1	84
77	The Influence of Oxygen and Carbon-Content on Aging of Ti-15-3. Journal of Materials Engineering and Performance, 2005, 14, 728-734.	2.5	8
78	Effect of Carbon on Microstructure and Mechanical Properties of a Eutectoid Î² Titanium Alloy. Journal of Materials Engineering and Performance, 2005, 14, 735-740.	2.5	22
79	Microstructural refinement in cast TiAl alloys by solid state transformations. Scripta Materialia, 2005, 52, 731-734.	5.2	71
80	Alloy and process development of TiAl. Journal of Materials Science, 2004, 39, 3935-3940.	3.7	31
81	Microstructures of laser-deposited Tiâ€“6Alâ€“4V. Materials & Design, 2004, 25, 137-144.	5.1	356
82	The role of surface condition, residual stress and microstructure on pre-yield cracking in Ti44Al8Nb1B. Intermetallics, 2004, 12, 281-287.	3.9	19