Yuman Zhu

List of Publications by Year
in descending order

63 papers	4,519 citations	159585 30 h-index	123424 61 g-index
64 all docs	64 docs citations	64 times ranked	2336 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	Grain boundary Î±-phase precipitation and coarsening: Comparing laser powder bed fusion with as-cast Ti-6Al-4V. Scripta Materialia, 2022, 207, 114261.	5.2	40
4	A microstructure-based creep model for additively manufactured nickel-based superalloys. Acta Materialia, 2022, 224, 117528.	7.9	29
5	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
6	Towards creep property improvement of selective laser melted Ni-based superalloy IN738LC. Journal of Materials Science and Technology, 2022, 112, 301-314.	10.7	16
7	In-situ duplex structure formation and high tensile strength of super duplex stainless steel produced by directed laser deposition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 833, 142557.	5.6	19
8	Scanning strategy induced cracking and anisotropic weakening in grain texture of additively manufactured superalloys. Additive Manufacturing, 2022, 52, 102660.	3.0	3
9	Corrosion resistant and high-strength dual-phase Mg-Li-Al-Zn alloy by friction stir processing. Communications Materials, 2022, 3, .	6.9	31
10	Effect of in-situ layer-by-layer rolling on the microstructure, mechanical properties, and corrosion resistance of a directed energy deposited 316L stainless steel. Additive Manufacturing, 2022, 55, 102863.	3.0	3
11	Review of high-strength aluminium alloys for additive manufacturing by laser powder bed fusion. Materials and Design, 2022, 219, 110779.	7.0	94
12	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
13	Intensive processing optimization for achieving strong and ductile Al-Mn-Mg-Sc-Zr alloy produced by selective laser melting. Materials and Design, 2021, 198, 109317.	7.0	72
14	Production Strategy for Manufacturing Large-Scale AlSi10Mg Components by Laser Powder Bed Fusion. Jom, 2021, 73, 770-780.	1.9	13
15	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
16	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
17	Effects of Post Heat Treatments on Microstructures and Mechanical Properties of Selective Laser Melted Ti6Al4V Alloy. Metals, 2021, 11, 1593.	2.3	13
18	Hierarchical layered and refined grain structure of Inconel 718 superalloy produced by rolling-assisted directed energy deposition. Additive Manufacturing Letters, 2021, 1, 100009.	2.1	4

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19	Microstructure control by heat treatment for better ductility and toughness of Ti-6Al-4V produced by laser powder bed fusion. Australian Journal of Mechanical Engineering, 2021, 19, 680-691.	2.1	9
20	Training high-strength aluminum alloys to withstand fatigue. Nature Communications, 2020, 11, 5198.	12.8	54
21	Dynamic precipitation behavior and mechanical properties of hot-extruded Mg89Y4Zn2Li5 alloys with different extrusion ratio and speed. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 798, 140121.	5.6	17
22	Helium bubble nucleation in Laser Powder Bed Fusion processed 304L stainless steel. Journal of Nuclear Materials, 2020, 542, 152443.	2.7	16
23	The Î²1 Triad-Related Configurations in a Mg-RE Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 1887-1896.	2.2	3
24	Incoherent tilt grain boundaries stabilized by stacking faults and solute-cluster segregation: a case-study of an Mg-Gd alloy. Materials Research Letters, 2020, 8, 268-274.	8.7	11
25	Atomic-Scale Investigation of the Borides Precipitated in a Transient Liquid Phase-Bonded Ni-Based Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 1689-1698.	2.2	12
26	A first-principles study of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msubsup><mml:mrow><mml:mi mathvariant="normal">Î²</mml:mi></mml:mrow><mml:mtext>F</mml:mtext><mml:mo>â€²</mml:mo></mml:msubsup></mml:math> phase in magnesium-rare earth binary systems. Computational Materials Science, 2019, 170, 109126.	3.0	8
27	Effects of boron addition on microstructures and mechanical properties of Ti-6Al-4V manufactured by direct laser deposition. Materials and Design, 2019, 184, 108191.	7.0	80
28	Effects of Calcium on Strength and Microstructural Evolution of Extruded Alloys Based on Mg-3Al-1Zn-0.3Mn. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 4344-4363.	2.2	54
29	Precipitation strengthening of aluminum alloys by room-temperature cyclic plasticity. Science, 2019, 363, 972-975.	12.6	323
30	Revisiting building block ordering of long-period stacking ordered structures in Mgâ€“Yâ€“Al alloys. Acta Materialia, 2018, 152, 96-106.	7.9	24
31	On the Precipitation in an Ag-Containing Mg-Gd-Zr Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 673-694.	2.2	48
32	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mrow><mml:mo>{</mml:mo><mml:mrow><mml:mn>10</mml:mn><mml:mrow><mml:mover accent="true"><mml:mn>1</mml:mn><mml:mo>Â¯</mml:mo></mml:mover></mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml: Twin boundary structures in a Mgâ€“Gd alloy. Acta Materialia, 2018, 143, 1-12.	7.9	75
33	A 12R long-period stacking-ordered structure in a Mg-Ni-Y alloy. Journal of Materials Science and Technology, 2018, 34, 2235-2239.	10.7	83
34	(Al,Mg)₃La: a new phase in the Mgâ€“Alâ€“La system. Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials, 2018, 74, 370-375.	1.1	11
35	Achieving exceptionally high strength in Mg 3Al 1Zn-0.3Mn extrusions via suppressing intergranular deformation. Acta Materialia, 2018, 160, 97-108.	7.9	114
36	Tilt boundaries and associated solute segregation in a Mgâ€“Gd alloy. Acta Materialia, 2017, 127, 505-518.	7.9	59

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37	On the structure and role of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:msubsup><mml:mtext>Î²</mml:mtext><mml:mtext>F</mml:mtext><mml:mtext>â€²</mml:mtext></mml:msu in Î²1 precipitation in Mgâ€“Nd alloys. Acta Materialia, 2017, 133, 408-426.	7.9	59
38	Making every electron count: materials characterization by quantitative analytical scanning transmission electron microscopy. Microscopy and Microanalysis, 2016, 22, 1430-1431.	0.4	0
39	Influence of Flash Treatment on Pseudoelastic Behaviour of Biomedical Ti-25Nb-3Zr-3Mo-2Sn Alloy. Materials Science Forum, 2016, 879, 1375-1380.	0.3	0
40	Atomic-scale study of {1â€‰1â€‰2} twin boundary structure in a Î²-Ti alloy. Philosophical Magazine Letters, 2016, 96, 280-285.	1.2	7
41	Improving Formability of Mgâ€“Caâ€“Zr Sheet Alloy by Microalloying of Zn. Advanced Engineering Materials, 2016, 18, 1763-1769.	3.5	40
42	A closer look at constituent induced localised corrosion in Al-Cu-Mg alloys. Corrosion Science, 2016, 113, 160-171.	6.6	61
43	Texture evolution during static recrystallization of cold-rolled magnesium alloys. Acta Materialia, 2016, 105, 479-494.	7.9	349
44	Solute clusters and GP zones in binary Mgâ€“RE alloys. Acta Materialia, 2016, 106, 260-271.	7.9	131
45	Precipitation in a Ag-Containing Mg-Y-Zn Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 927-940.	2.2	38
46	HAADF-STEM study of phase separation and the subsequent Î± phase precipitation in a Î²-Ti alloy. Scripta Materialia, 2016, 112, 46-49.	5.2	27
47	Guided Self-Assembly of Nano-Precipitates into Mesocrystals. Scientific Reports, 2015, 5, 16530.	3.3	12
48	On the prismatic precipitate plates in Mgâ€“Caâ€“In alloys. Scripta Materialia, 2015, 101, 16-19.	5.2	12
49	Annealing strengthening in a dilute Mgâ€“Znâ€“Ca sheet alloy. Scripta Materialia, 2015, 107, 127-130.	5.2	62
50	Characterization and Formation of Rod-Shaped (Al,Si)3Ti Particles in an Al-7Si-0.35Mg-0.12Ti (WtÂPct) Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 3723-3731.	2.2	8
51	Linear-chain configuration of precipitates in Mgâ€“Nd alloys. Acta Materialia, 2015, 83, 239-247.	7.9	36
52	A simulation study of Î² 1 precipitation on dislocations in an Mgâ€“rare earth alloy. Acta Materialia, 2014, 77, 133-150.	7.9	60
53	On the Structure, Transformation and Deformation of Long-Period Stacking Ordered Phases in Mg-Y-Zn Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 3338-3348.	2.2	124
54	A simulation study of the shape of Î²â€² precipitates in Mgâ€“Y and Mgâ€“Gd alloys. Acta Materialia, 2013, 61, 453-466.	7.9	150

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55	Periodic Segregation of Solute Atoms in Fully Coherent Twin Boundaries. Science, 2013, 340, 957-960.	12.6	659
56	Simulation study of precipitation in an Mgâ€“Yâ€“Nd alloy. Acta Materialia, 2012, 60, 4819-4832.	7.9	84
57	Growth and transformation mechanisms of 18R and 14H in Mgâ€“Yâ€“Zn alloys. Acta Materialia, 2012, 60, 6562-6572.	7.9	233
58	Characterization of planar features in Mgâ€“Yâ€“Zn alloys. Acta Materialia, 2010, 58, 464-475.	7.9	99
59	The 18R and 14H long-period stacking ordered structures in Mgâ€“Yâ€“Zn alloys. Acta Materialia, 2010, 58, 2936-2947.	7.9	558
60	Characterisation of intermetallic phases in an Mgâ€“Yâ€“Agâ€“Zn casting alloy. Philosophical Magazine Letters, 2010, 90, 173-181.	1.2	12
61	The building block of long-period structures in Mgâ€“REâ€“Zn alloys. Scripta Materialia, 2009, 60, 980-983.	5.2	182
62	Improvement in the age-hardening response of Mgâ€“Yâ€“Zn alloys by Ag additions. Scripta Materialia, 2008, 58, 525-528.	5.2	79
63	One of the potentially optimal interfaces of Î²-FeSi2/Si. Journal of Crystal Growth, 2005, 279, 129-139.	1.5	2