

Liang Wang

List of Publications by Year in descending order

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Version: 2024-02-01

61
papers

588
citations

623188

14
h-index

713013

21
g-index

61
all docs

61
docs citations

61
times ranked

392
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects and mechanism of ultrasonic irradiation on solidification microstructure and mechanical properties of binary TiAl alloys. <i>Ultrasonics Sonochemistry</i> , 2017, 38, 120-133.	3.8	55
2	Microstructure, Mechanical Properties, and Crack Propagation Behavior in High-Nb TiAl Alloys by Directional Solidification. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 4555-4564.	1.1	39
3	Nanometer-scale gradient atomic packing structure surrounding soft spots in metallic glasses. <i>Npj Computational Materials</i> , 2018, 4, .	3.5	37
4	Effect of hydrogen on hot deformation behaviors of TiAl alloys. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 13322-13328.	3.8	35
5	Mechanical Properties and Thermal Shock Resistance of HVOF Sprayed NiCrAlY Coatings Without and With Nano Ceria. <i>Journal of Thermal Spray Technology</i> , 2012, 21, 818-824.	1.6	26
6	Microstructure and mechanical properties of NbZrTi and NbHfZrTi alloys. <i>Rare Metals</i> , 2019, 38, 840-847.	3.6	22
7	Evaporation behavior of aluminum during the cold crucible induction skull melting of titanium aluminum alloys. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2000, 31, 837-844.	1.0	21
8	Effect of peritectic reaction on dendrite coarsening in directionally solidified Sn-36at.%Ni alloy. <i>Journal of Materials Science</i> , 2012, 47, 6108-6117.	1.7	20
9	Well-aligned in situ composites in directionally solidified Fe-Ni peritectic system. <i>Applied Physics Letters</i> , 2006, 89, 231918.	1.5	19
10	Faceted/nonfaceted growth transition and 3-D morphological evolution of primary Al ₆ Mn microcrystals in directionally solidified Al-3 at.% Mn alloy. <i>Journal of Materials Research</i> , 2014, 29, 1256-1263.	1.2	18
11	Deoxidation of Ti-Al intermetallics via hydrogen treatment. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 9214-9217.	3.8	17
12	Design of (Nb, Mo) ₄₀ Ti ₃₀ Ni ₃₀ alloy membranes for combined enhancement of hydrogen permeability and embrittlement resistance. <i>Scientific Reports</i> , 2017, 7, 209.	1.6	17
13	Effects of Nb on Microstructure and Mechanical Properties of Ti ₄₂ Al _{2.6} C Alloys. <i>Advanced Engineering Materials</i> , 2018, 20, 1701112.	1.6	17
14	Hydrogen induced softening and hardening for hot workability of (TiB+TiC)/Ti-6Al-4V composites. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 3380-3388.	3.8	16
15	Composition-dependent phase substitution in directionally solidified Sn-22at.%Ni peritectic alloy. <i>Journal of Materials Science</i> , 2016, 51, 1512-1521.	1.7	14
16	The critical pressure and impeding pressure of Al evaporation during induction skull melting processing of TiAl. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002, 33, 3249-3253.	1.1	12
17	A lateral remelting phenomenon of the primary phase below the temperature of peritectic reaction in directionally solidified Cu-Ge alloys. <i>Journal of Materials Research</i> , 2013, 28, 3261-3269.	1.2	11
18	Numerical Research on Magnetic Field, Temperature Field and Flow Field During Melting and Directionally Solidifying TiAl Alloys by Electromagnetic Cold Crucible. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2017, 48, 3345-3358.	1.0	11

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19	Prediction of the solidification path of Al-4.37Cu-27.02Mg ternary eutectic alloy with a unified microsegregation model coupled with Thermo-Calc. International Journal of Materials Research, 2013, 104, 244-254.	0.1	10
20	Primary dendrite distribution in directionally solidified Sn-36 at.% Ni peritectic alloy. Journal of Materials Research, 2013, 28, 740-746.	1.2	10
21	Microstructural evolution of Al-Cu-Li alloys with different Li contents by coupling of near-rapid solidification and two-stage homogenization treatment. China Foundry, 2020, 17, 190-197.	0.5	10
22	Local melting/solidification during peritectic solidification in a steep temperature gradient: analysis of a directionally solidified Al-25at%Ni. Applied Physics A: Materials Science and Processing, 2014, 116, 1821-1831.	1.1	9
23	Optimization of Processing Parameters for WC-11Co Cemented Carbide Doped with Nano-Crystalline CeO ₂ . Journal of Materials Engineering and Performance, 2013, 22, 112-117.	1.2	8
24	Controllable 3D morphology and growth mechanism of quasicrystalline phase in directionally solidified Al-Mn-Be alloy. Journal of Materials Research, 2014, 29, 2547-2555.	1.2	8
25	On migration of primary/peritectic interface during interrupted directional solidification of Sn-Ni peritectic alloy. Scientific Reports, 2016, 6, 24512.	1.6	8
26	Impact of laser scanning speed on microstructure and mechanical properties of Inconel 718 alloys by selective laser melting. China Foundry, 2021, 18, 170-179.	0.5	8
27	Improvement of Microstructure and Mechanical Properties of Near-Eutectic Al-Mg ₂ Si Alloys by Eu Addition. Advanced Engineering Materials, 2021, 23, 2001447.	1.6	7
28	Influence of initial solid-liquid interface morphology on further microstructure evolution during directional solidification. Applied Physics A: Materials Science and Processing, 2013, 110, 443-451.	1.1	6
29	Creep Behavior of High-Nb TiAl Alloy at 800-900°C by Directional Solidification. Advanced Engineering Materials, 2018, 20, 1700734.	1.6	6
30	A Comparative Study on Microstructure and Mechanical Properties of Ti-43/46Al-5Nb-0.1B Alloys Modified by Mo. Advanced Engineering Materials, 2020, 22, 1901075.	1.6	6
31	Two-phase separated growth and peritectic reaction during directional solidification of Cu-Ge peritectic alloys. Journal of Materials Research, 2013, 28, 1372-1377.	1.2	5
32	Effect of heat treatment on microstructure and mechanical properties of cast and directionally solidified high-Nb contained TiAl-based alloys. Journal of Materials Research, 2015, 30, 3331-3342.	1.2	5
33	On oscillatory microstructure during cellular growth of directionally solidified Sn-36at.%Ni peritectic alloy. Scientific Reports, 2016, 6, 24315.	1.6	5
34	Effect of hydrogen on interfacial reaction between Ti-6Al-4V alloy melt and graphite mold. Journal of Materials Research and Technology, 2020, 9, 6933-6939.	2.6	5
35	A simple model for lamellar peritectic coupled growth with peritectic reaction. Science in China Series G: Physics, Mechanics and Astronomy, 2007, 50, 442-450.	0.2	4
36	In doping effect on optical properties in Zn:In:Fe:LiNbO ₃ crystals. Crystal Research and Technology, 2009, 44, 754-758.	0.6	4

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37	Characterization of hydrogen-induced structural changes in Zr-based bulk metallic glasses using positron annihilation spectroscopy. <i>Journal of Materials Research</i> , 2012, 27, 2587-2592.	1.2	4
38	Isothermal Peritectic Coupled Growth in Directionally Solidified Cu-20wt% Sn Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 4219-4223.	1.1	4
39	Directional Solidification of Ti6Al4V Ingots with an Electromagnetic Cold Crucible by Adjusting the Meniscus. <i>ISIJ International</i> , 2012, 52, 1296-1300.	0.6	4
40	Study on in situ Al-Si functionally graded materials produced by traveling magnetic field. <i>Science and Engineering of Composite Materials</i> , 2012, 19, 209-214.	0.6	4
41	Detachment of secondary dendrite arm in a directionally solidified Sn-Ni peritectic alloy under deceleration growth condition. <i>Scientific Reports</i> , 2016, 6, 27682.	1.6	4
42	Effect of a Traveling Magnetic Field on Micropore Formation in Al-Cu Alloys. <i>Metals</i> , 2018, 8, 448.	1.0	4
43	Microstructures and mechanical properties of Ti-44Al-5Nb-3Cr-1.5Zr-xMo-yB alloys. <i>Journal of Materials Research</i> , 2020, 35, 2756-2764.	1.2	4
44	Molding of temperature field for the induction skull melting process of Ti-47Ni-9Nb. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2001, 32, 2895-2902.	1.1	3
45	Effect of peritectic reaction on the migration of secondary dendrite arms in the presence of tertiary dendrites: analysis of a directionally solidified Sn-36at.%Ni peritectic alloy. <i>Journal of Materials Science</i> , 2013, 48, 2608-2617.	1.7	3
46	Secondary dendrite arm migration caused by temperature gradient zone melting in the directionally solidified Sn-40 at.% Mn peritectic alloy. <i>Journal of Materials Research</i> , 2013, 28, 1196-1202.	1.2	3
47	Effect of growth rate on microstructures and microhardness in directionally solidified Ti-47Al-1.0W-0.5Si alloy. <i>Journal of Materials Research</i> , 2016, 31, 618-626.	1.2	3
48	Effects of hydrogen on the interfacial reaction between Ti 6Al 4V alloy melt and Al ₂ O ₃ ceramic shell. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 5225-5230.	3.8	3
49	Influence of laser parameters on segregation of Nb during selective laser melting of Inconel 718. <i>China Foundry</i> , 2021, 18, 379-388.	0.5	3
50	Evolution of Microstructure and Mechanical Properties in Al-Zn-Mg-Cu Alloy by Electric Pulse Aging Treatment. <i>Transactions of the Indian Institute of Metals</i> , 2021, 74, 2835-2842.	0.7	3
51	Microstructure and Mechanical Properties of Bio-Inspired Ti/Al/Al Multilayered Composites. <i>Advanced Engineering Materials</i> , 2019, 21, 1800722.	1.6	2
52	Prediction Mechanical Strength of Sand Mold Samples Fabricated by Three-Dimensional Printing. <i>Materials Transactions</i> , 2020, 61, 1620-1628.	0.4	2
53	Evaporation loss of components during induction skull melting of Ti-13Al-29Nb-2.5Mo. <i>International Journal of Cast Metals Research</i> , 2003, 16, 466-472.	0.5	1
54	Hydrogenation behavior of Ti-44Al-6Nb alloy and its effect on the microstructure and hot deformability. <i>Journal of Materials Research</i> , 2017, 32, 1304-1315.	1.2	1

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55	Efficient Melt Stirring Induced by the Coupled Effects of Alternating Magnetic Field and Configuration of Cold Crucible. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 28-33.	1.0	1
56	Investigation and Improvement of Pushing Dislocation in Ceramsite Sand Three-Dimensional Printing. 3D Printing and Additive Manufacturing, 2023, 10, 289-297.	1.4	1
57	Tensile properties of an aluminum matrix composite reinforced by SnO ₂ -coated Al ₁₈ B ₄ O ₃₃ whisker. Journal Wuhan University of Technology, Materials Science Edition, 2011, 26, 1166-1170.	0.4	0
58	INVESTIGATIONS ON DEFECT STRUCTURE AND LIGHT-INDUCED SCATTERING OF Mg:Ho:LiNbO ₃ WITH VARIOUS Mg ²⁺ CONCENTRATION. Modern Physics Letters B, 2012, 26, 1250127.	1.0	0
59	Microstructures and properties of Nb-Si-based alloys with B addition. Rare Metals, 2019, , 1.	3.6	0
60	Microstructural Optimization of Fe-Rich Intermetallic in Al-12wt% Si-2wt% Fe alloys by Adding Travelling Magnetic Fields. Advanced Engineering Materials, 2020, 22, 2000561.	1.6	0
61	Microstructure Evolution and Toughening Mechanism of a Nb-18Si-5HfC Eutectic Alloy Created by Selective Laser Melting. Materials, 2022, 15, 1190.	1.3	0