Jie-Ren Yang

List of Publications by Year
in descending order

58 papers	699 citations	623734 14 h-index	642732 23 g-index
58 all docs	58 docs citations	58 times ranked	286 citing authors

#	Article	IF	Citations
1	Microstructure control of Ti 45Al 8.5Nb (W, B, Y) alloy during the solidification process. Acta Materialia, 2016, 112, 121-131.	7.9	62
2	Refinement of massive Î³ phase with enhanced properties in a Ta containing Î³-TiAl-based alloys. Scripta Materialia, 2019, 172, 113-118.	5.2	42
3	In-situ investigation on the Î² to Î± phase transformation in Tiâ€“45Alâ€“8.5Nbâ€“(W, B, Y) alloy. Journal of Alloys and Compounds, 2016, 663, 594-600.	5.5	39
4	Mechanism and evolution of heat transfer in mushy zone during cold crucible directionally solidifying TiAl alloys. International Journal of Heat and Mass Transfer, 2013, 63, 216-223.	4.8	33
5	Tailoring the Microstructure of a Î²-Solidifying TiAl Alloy by Controlled Post-solidification Isothermal Holding and Cooling. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 5095-5105.	2.2	32
6	Evolution of B2(Ï‰) region in high-Nb containing TiAl alloy in intermediate temperature range. Intermetallics, 2017, 82, 32-39.	3.9	30
7	Response of the solidification microstructure of a high Nb containing TiAl alloy to an isothermal high-temperature heat treatment. Intermetallics, 2015, 63, 1-6.	3.9	29
8	Microstructure evolution and mechanical properties of a Ti-45Al-8.5Nb-(W, B, Y) alloy obtained by controlled cooling from a single Î² region. Journal of Alloys and Compounds, 2018, 740, 1140-1148.	5.5	25
9	Thermal characteristics of induction heating in cold crucible used for directional solidification. Applied Thermal Engineering, 2013, 59, 69-76.	6.0	24
10	Heat transfer and macrostructure formation of Nb containing TiAl alloy directionally solidified by square cold crucible. Intermetallics, 2013, 42, 184-191.	3.9	23
11	A Newly Generated Nearly Lamellar Microstructure in Cast Ti-48Al-2Nb-2Cr Alloy for High-Temperature Strengthening. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 5839-5852.	2.2	23
12	Flow field and its effect on microstructure in cold crucible directional solidification of Nb containing TiAl alloy. Journal of Materials Processing Technology, 2013, 213, 1355-1363.	6.3	21
13	Grain refinement of 1 at.% Ta-containing cast TiAl-based alloy by cyclic air-cooling heat treatment. Materials Letters, 2020, 274, 127940.	2.6	17
14	Continuous-Cooling-Transformation (CCT) Behaviors and Fine-Grained Nearly Lamellar (FGNL) Microstructure Formation in a Cast Ti-48Al-4Nb-2Cr Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 5285-5295.	2.2	16
15	Temperature distribution in bottomless electromagnetic cold crucible applied to directional solidification. International Journal of Heat and Mass Transfer, 2016, 100, 131-138.	4.8	14
16	Atomic-scale observations of B2 â†’ Ï‰-related phases transition in high-Nb containing TiAl alloy. Materials Characterization, 2017, 130, 135-138.	4.4	14
17	High-temperature rotary-bending fatigue characteristics of a high Nb-containing beta-gamma TiAl alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 735, 40-48.	5.6	14
18	Optimization of electromagnetic energy in cold crucible used for directional solidification of TiAl alloy. Energy, 2018, 161, 143-155.	8.8	13

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19	Continuous cooling transformationÂ(CCT) behavior of a high Nb-containing TiAl alloy. Materialia, 2019, 5, 100169.	2.7	13
20	Effects of thermal history on the microstructure evolution of Ti-6Al-4V during solidification. Journal of Materials Processing Technology, 2016, 227, 281-287.	6.3	12
21	Effect of configuration on magnetic field in cold crucible using for continuous melting and directional solidification. Transactions of Nonferrous Metals Society of China, 2012, 22, 404-410.	4.2	11
22	The phase transformation behavior between Î³ lamellae and massive Î³ in a Ta containing TiAl-based alloy. Journal of Alloys and Compounds, 2020, 821, 153290.	5.5	11
23	In-situ observation of microstructure evolution and phase transformation under continuous cooling in Ru-containing TiAl alloys. Materials Characterization, 2020, 163, 110296.	4.4	11
24	Solidification microstructure characteristics of Tiâ€“44Alâ€“4Nbâ€“2Crâ€“0.1B alloy under various cooling rates during mushy zone. Rare Metals, 2016, 35, 35-41.	7.1	9
25	Numerical and experimental study of electron beam floating zone melting of Iridium single crystal. Journal of Materials Processing Technology, 2017, 250, 239-246.	6.3	9
26	Evolution of Î£3n CSL boundaries in Ni-Cr-Mo alloy during aging treatment. Materials Characterization, 2017, 134, 379-386.	4.4	9
27	Creep-Induced Phase Instability and Microstructure Evolution of a Nearly Lamellar Tiâ€“45Alâ€“8.5Nbâ€“(W,) Tj ETQq1 1 0.784314 rgBT	2.9	9
28	A Combined Electromagnetic Levitation Melting, Counterâ€Gravity Casting, and Mold Preheating Furnace for Producing TiAl Alloy. Advanced Engineering Materials, 2018, 20, 1700526.	3.5	8
29	Mechanical properties of an aged Ni-Cr-Mo alloy and effect of long-range order phase on deformation behavior. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 731, 29-35.	5.6	8
30	On the eutectoid decomposition of Î±â†’Î³+Ï„1 in a Ru-containing TiAl alloy. Journal of Alloys and Compounds, 2019, 790, 42-47.	5.5	8
31	An ultra-refining microstructure in rapidly solidified Tiâ€“45Al-8.5Nb-(W, B, Y) alloy after an isothermal heat treatment. Journal of Alloys and Compounds, 2020, 827, 154283.	5.5	8
32	An atomic study of the transitional region between Î³/Î³ laths in Î³-TiAl. Intermetallics, 2015, 60, 13-18.	3.9	7
33	Precipitation of two kinds of Î³ laths in massive Î³ coexisting with Î³ lamellae in as-cast Ta-containing TiAl-Nb alloys. Materials Letters, 2016, 185, 480-483.	2.6	7
34	The Effect of Pressure Stress on the Evolution of B2(Ï‰) Phase in High Nb Containing TiAl Alloy. Advanced Engineering Materials, 2017, 19, 1600844.	3.5	7
35	Microstructure refinement assisted by Î±-recrystallization in a peritectic TiAl alloy. Journal of Materials Research and Technology, 2021, 11, 1135-1141.	5.8	7
36	Numerical calculation and experimental evaluation of counter-gravity investment casting of Ti-48Al-2Cr-2Nb alloy. International Journal of Advanced Manufacturing Technology, 2018, 96, 3295-3309.	3.0	6

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37	Competitive growth of Si and YSi2 phases in a eutectic Si-Y alloy prepared by the Bridgeman method. Ceramics International, 2018, 44, 13232-13239.	4.8	6
38	Phase transformation pathway and microstructural refinement by feathery transformation of Ru-containing Î³-TiAl alloy. Journal of Materials Research and Technology, 2022, 18, 5290-5300.	5.8	6
39	Microstructure Evolution in the Mushy Zone of a Î²â€Solidifying TiAl Alloy under Different Cooling Processes. Advanced Engineering Materials, 2016, 18, 1667-1673.	3.5	5
40	Nucleation behavior of Ï‰o phase in TiAl alloys at different elevated temperatures. Journal of Materials Science, 2018, 53, 5287-5295.	3.7	5
41	Determination of Constitutive Equation and Thermoâ€"Mechanical Processing Map for Pure Iridium. Metals, 2020, 10, 1087.	2.3	5
42	Microstructure evolution and mechanical properties of a novel Î³â€² phase-strengthened Ir-W-Al-Th superalloy. Rare Metals, 2021, 40, 3588-3597.	7.1	5
43	Effects of Ru content on phase transformation and compression property of cast TiAl alloys. China Foundry, 2020, 17, 393-401.	1.4	5
44	Uniformity analysis of magnetic field in an electromagnetic cold crucible used for directional solidification. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2013, 32, 997-1008.	0.9	4
45	Effect of mold temperature and casting dimension on microstructure and tensile properties of counter-gravity casting Ti-6Al-4V alloys. China Foundry, 2016, 13, 9-14.	1.4	3
46	Phase selection and solidification path transition of Tiâ€"48Alâ€"xNb alloys with different cooling rates. Rare Metals, 2023, 42, 288-295.	7.1	3
47	Anomalous Tensile Strength and Fracture Behavior of Polycrystalline Iridium from Room Temperature to 1600â€‰Â°C. Advanced Engineering Materials, 2018, 20, 1701114.	3.5	3
48	Phase Transformation and Fine Fully Lamellar (FFL) Structure Formation in a High Nbâ€Containing Betaâ€Gamma TiAl Alloy. Advanced Engineering Materials, 2019, 21, 1900244.	3.5	3
49	Effect of temperature gradient on competitive growth behavior of Si and YSi2 in a Siâ€"Y eutectic alloy prepared by Bridgeman method. Ceramics International, 2019, 45, 16776-16783.	4.8	3
50	Fabrication and Microstructure Optimization of TiAl Castings Using a Combined Melting/Pouring/Heat Treatment Device. International Journal of Metalcasting, 2021, 15, 890-898.	1.9	3
51	Investigation on microstructure and mechanical properties of heat-treated Ti-47.5Alâ€"3Nb-3.5Cr alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 832, 142366.	5.6	3
52	Evolution of Metastable Î±₂ Phase in a Quenched Highâ€Nbâ€Containing TiAl Alloy at 800â€‰Â°C. Advanced Engineering Materials, 2020, 22, 1901539.	3.5	2
53	Active Eutectoid Decomposition of Î±â€‰â†'â€‰Î³â€‰+â€‰Ï„1 and the Morphological Evolution in a Ru-Containing TiAl Alloy. Acta Metallurgica Sinica (English Letters), 2021, 34, 1042-1050.	2.9	2
54	Thermomechanical instability and deformation behavior of Î²o(Ï‰) phase region in a Ti-43Al-8Nb-0.2W-0.2B alloy under high-temperature rotary-bending fatigue. International Journal of Fatigue, 2022, 163, 106933.	5.7	2

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55	Transition of solidification path in nonequilibrium solidification of Tiâ€"48Alâ€"8Nb alloy. Rare Metals, 2016, 35, 48-53.	7.1	0
56	Microstructure Evolution and Mechanical Properties of Novel Î³/Î³â€² Two-Phase Strengthened Ir-Based Superalloys. Metals, 2019, 9, 1171.	2.3	0
57	Molecular dynamics simulation and micropillar compression of deformation behavior in iridium single crystals. Rare Metals, 2019, , 1.	7.1	0
58	Influence of heat treatment on microstructure and nanohardness of TiAl alloy solidified under high pressure. China Foundry, 2020, 17, 435-440.	1.4	0