Jun Zhang

List of Publications by Citations

182 papers	2,138 citations	23 h-index	32 g-index
188 ext. papers	2,594 ext. citations	4.2 avg, IF	5 L-index

#	Paper	IF	Citations
182	Microstructure and stress rupture properties of single crystal superalloy CMSX-2 under high thermal gradient directional solidification. *Materials Letters*, **2007**, 61, 227-230	3.3	72
181	High thermal gradient directional solidification and its application in the processing of nickel-based superalloys. *Journal of Materials Processing Technology*, **2010**, 210, 159-165	5.3	54
180	Influence of withdrawal rate on the microstructure of Ni-base single-crystal superalloys containing Re and Ru. *Journal of Alloys and Compounds*, **2011**, 509, 5866-5872	5.7	49
179	Microstructures and mechanical properties of directionally solidified Al2O3/GdAlO3 eutectic ceramic by laser floating zone melting with high temperature gradient. *Journal of the European Ceramic Society*, **2017**, 37, 1617-1626	6	44
178	Rapid solidification of Al2O3/Y3Al5O12/ZrO2 eutectic in situ composites by laser zone remelting. *Journal of Crystal Growth*, **2007**, 307, 448-456	1.6	44
177	A modified preparation technique and characterization of directionally solidified Al2O3/Y3Al5O12 eutectic in situ composites. *Scripta Materialia*, **2009**, 60, 362-365	5.6	39
176	Influence of directional solidification variables on the microstructure and crystal orientation of AM3 under high thermal gradient. *Journal of Materials Science*, **2010**, 45, 6101-6107	4.3	38
175	Rapid solidification behaviour of Al2O3/Y3Al5O12 (YAG) binary eutectic ceramic in situ composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2008**, 479, 380-388	5.3	38
174	Microstructure, growth mechanism and mechanical property of Al2O3-based eutectic ceramic in situ composites. *Journal of the European Ceramic Society*, **2011**, 31, 1191-1198	6	36
173	Microstructure transformation from irregular eutectic to complex regular eutectic in directionally solidified Al2O3/GdAlO3/ZrO2 ceramics by laser floating zone melting. *Journal of the European Ceramic Society*, **2016**, 36, 1447-1454	6	35
172	Simulation of grain selection during single crystal casting of a Ni-base superalloy. *Journal of Alloys and Compounds*, **2014**, 586, 220-229	5.7	34
171	Microstructure and mechanical properties of Al2O3/Y3Al5O12/ZrO2 hypereutectic directionally solidified ceramic prepared by laser floating zone. *Journal of the European Ceramic Society*, **2014**, 34, 3051-3059	6	30
170	Effect of solidification parameters on the microstructures of superalloy CMSX-6 formed during the downward directional solidification process. *Journal of Crystal Growth*, **2014**, 389, 47-54	1.6	29
169	Direct formation of Al2O3/GdAlO3/ZrO2 ternary eutectic ceramics by selective laser melting: Microstructure evolutions. *Journal of the European Ceramic Society*, **2018**, 38, 5144-5152	6	26
168	Longitudinal cross-section microstructure of growth striation in Al2O3/Y3Al5O12/ZrO2 directionally solidified eutectic ceramic prepared by laser floating zone. *Journal of the European Ceramic Society*, **2013**, 33, 1123-1128	6	26
167	Microstructure evolution of directionally solidified DZ125 superalloy with melt superheating treatment. *Journal of Alloys and Compounds*, **2010**, 508, 440-445	5.7	26
166	Phase-field study on effects of antiphase domain and elastic energy on evolution of γ′ precipitates in nickel-based superalloys. *Computational Materials Science*, **2017**, 129, 211-219	3.2	25

165	In situ fabrication of highly-dense Al2O3/YAG nanoeutectic composite ceramics by a modified laser surface processing. *Journal of the European Ceramic Society*, **2014**, 34, 739-744	6	25
164	Microstructure and properties of Ni□Ni3Si composites by directional solidification. *Physica B: Condensed Matter*, **2012**, 407, 3566-3569	2.8	25
163	Rapid growth and formation mechanism of ultrafine structural oxide eutectic ceramics by laser direct forming. *Applied Physics Letters*, **2011**, 99, 221913	3.4	24
162	Investigation of segregation and density profiles in the mushy zone of CMSX-4 superalloys solidified during downward and upward directional solidification processes. *Journal of Alloys and Compounds*, **2015**, 620, 24-30	5.7	23
161	An Al 2 O 3 /Y 3 Al 5 O 12 eutectic nanocomposite rapidly solidified by a new method: Liquid□metal quenching. *Scripta Materialia*, **2014**, 92, 39-42	5.6	23
160	Directional solidification and microstructural development of Al2O3/GdAlO3 eutectic ceramic in situ composite under rapid growth conditions. *Journal of Alloys and Compounds*, **2011**, 509, 4420-4425	5.7	23
159	Stress dependence of the creep behaviors and mechanisms of a third-generation Ni-based single crystal superalloy. *Journal of Materials Science and Technology*, **2019**, 35, 752-763	9.1	23
158	Directional solidification and growth characteristics of Al2O3/Er3Al5O12/ZrO2 ternary eutectic ceramic by laser floating zone melting. *Journal of Materials Science*, **2017**, 52, 5559-5568	4.3	22
157	Modes of Grain Selection in Spiral Selector during Directional Solidification of Nickel-base Superalloys. *Journal of Materials Science and Technology*, **2012**, 28, 214-220	9.1	22
156	Microstructure and mechanical properties of a directionally solidified Al2O3/Y3Al5O12/ZrO2 hypoeutectic in situ composite. *Composites Science and Technology*, **2009**, 69, 2657-2667	8.6	22
155	Solidification microstructure of laser floating zone remelted Al2O3/YAG eutectic in situ composite. *Journal of Crystal Growth*, **2012**, 345, 51-55	1.6	21
154	A phase-field model for creep behavior in nickel-base single-crystal superalloy: Coupled with creep damage. *Scripta Materialia*, **2018**, 147, 16-20	5.6	20
153	Solid-liquid interface and growth rate range of Al2O3-based eutectic in situ composites grown by laser floating zone melting. *Journal of Alloys and Compounds*, **2016**, 662, 634-639	5.7	20
152	Effect of local cooling rates on the microstructures of single crystal CMSX-6 superalloy: A comparative assessment of the Bridgman and the downward directional solidification processes. *Journal of Alloys and Compounds*, **2014**, 616, 102-109	5.7	20
151	Effect of carbon and boron additions on segregation behavior of directionally solidified nickel-base superalloys with rhenium. *Transactions of Nonferrous Metals Society of China*, **2013**, 23, 3257-3264	3.3	20
150	Effects of Re and Ru on the Solidification Characteristics of Nickel-Base Single-Crystal Superalloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2011**, 42, 2733-2741	2.3	20
149	Rapid solidification and fracture behavior of ternary metastable eutectic Al2O3/YAG/YSZ in situ composite ceramic. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 1967-1973	5.3	20
148	Rapid eutectic growth of Al2O3/Er3Al5O12 nanocomposite prepared by a new method: Melt falling-drop quenching. *Scripta Materialia*, **2016**, 125, 39-43	5.6	20

147	Sintering densification and microstructure formation of bulk Al2O3/YAG eutectic ceramics by hot pressing based on fine eutectic structure. *Materials and Design*, **2016**, 92, 213-222	8.1	19
146	Microstructure and stress rupture property of Ni-based monocrystal superalloy with melt superheating treatment. *Journal of Alloys and Compounds*, **2009**, 484, 753-756	5.7	19
145	Preparation and characterization of Al2O3/Y3Al5O12/ZrO2 ternary hypoeutectic in situ composites by laser rapid solidification. *Journal of Applied Physics*, **2008**, 104, 023511	2.5	19
144	Coupling plasmonic nanoparticles with TiO2 nanotube photonic crystals for enhanced dye-sensitized solar cells performance. *Electrochimica Acta*, **2018**, 263, 373-381	6.7	18
143	Influence of substituting Mo for W on solidification characteristics of Re-containing Ni based single crystal superalloy. *Journal of Alloys and Compounds*, **2018**, 754, 85-92	5.7	18
142	Fractal characteristic of laser zone remelted Al2O3/YAG eutectic in situ composite. *Journal of Crystal Growth*, **2008**, 310, 490-494	1.6	18
141	Effect of alloying elements on stacking fault energies of and phases in Ni-based superalloy calculated by first principles. *Vacuum*, **2020**, 181, 109682	3.7	18
140	Stress dependence of dislocation networks in elevated temperature creep of a Ni-based single crystal superalloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 742, 132-137	5.3	18
139	Preparation, microstructure and dislocation of solar-grade multicrystalline silicon by directional solidification from metallurgical-grade silicon. *Transactions of Nonferrous Metals Society of China*, **2012**, 22, 2548-2553	3.3	17
138	Dendrite morphology and evolution mechanism of nickel-based single crystal superalloys grown along the and orientations. *Progress in Natural Science: Materials International*, **2012**, 22, 407-413	3.6	17
137	Effect of solidification rate on MC-type carbide morphology in single crystal Ni-base superalloy AM3. *Transactions of Nonferrous Metals Society of China*, **2010**, 20, 1835-1840	3.3	17
136	Multi-scale characterization of stray grain in the platform of nickel-base single crystal turbine blade. *Vacuum*, **2016**, 131, 181-187	3.7	17
135	Effect of secondary dendrite orientations on competitive growth of converging dendrites of Ni-based bi-crystal superalloys. *Materials Characterization*, **2017**, 125, 152-159	3.9	16
134	Investigation on remelting solution heat treatment for nickel-based single crystal superalloys. *Scripta Materialia*, **2017**, 136, 74-77	5.6	16
133	Heterogeneous nucleation in Mg r alloy under die casting condition. *Materials Letters*, **2015**, 160, 263-267	3.3	16
132	Growth characteristic of Al2O3/Y3Al5O12 (YAG) eutectic ceramic in situ composites by laser rapid solidification. *Journal of Alloys and Compounds*, **2008**, 456, 518-523	5.7	16
131	Effect of carbon addition on carbide morphology of single crystal Ni-based superalloy. *Transactions of Nonferrous Metals Society of China*, **2014**, 24, 339-345	3.3	15
130	Competitive grain growth mechanism in three dimensions during directional solidification of a nickel-based superalloy. *Journal of Alloys and Compounds*, **2013**, 578, 577-584	5.7	15

129	The influence of melt superheating treatment on the cast structure and stress rupture property of IN718C superalloy. *Journal of Alloys and Compounds*, **2017**, 706, 76-81	5.7	14
128	Influence of withdrawal rate on the porosity in a third-generation Ni-based single crystal superalloy. *Progress in Natural Science: Materials International*, **2017**, 27, 236-243	3.6	14
127	Influence of crystal orientation on cellular growth of a nickel-base single crystal superalloy. *Journal of Alloys and Compounds*, **2011**, 509, 9645-9649	5.7	14
126	Effect of Melt Superheating Treatment on Directional Solidification Interface Morphology of Multi-component Alloy. *Journal of Materials Science and Technology*, **2011**, 27, 668-672	9.1	14
125	Effect of sample diameter on primary dendrite spacing of directionally solidified Al-4%Cu alloy. *Transactions of Nonferrous Metals Society of China*, **2009**, 19, 1-8	3.3	14
124	Quantitative analysis of withdrawal rate on stray grain formation in the platforms of a Ni-Based single crystal dummy blade. *Journal of Alloys and Compounds*, **2019**, 773, 432-442	5.7	14
123	Effect of scanning speed on the solidification process of Al2O3/GdAlO3/ZrO2 eutectic ceramics in a single track by selective laser melting. *Ceramics International*, **2019**, 45, 17252-17257	5.1	13
122	Effect of Solidification Rate on Microstructure and Solid/Liquid Interface Morphology of Ni□1.5 wt% Si Eutectic Alloy. *Journal of Materials Science and Technology*, **2015**, 31, 280-284	9.1	13
121	Preparation and microstructure evolution of directionally solidified Al2O3/YAG/YSZ ternary eutectic ceramics by a modified electron beam floating zone melting. *Materials Letters*, **2013**, 91, 92-95	3.3	13
120	Microstructure and property of Czochralski-grown Si□TaSi2 eutectic in situ composite for field emission. *Journal of Crystal Growth*, **2005**, 276, 92-96	1.6	13
119	MICROSTRUCTURE AND MICROSEGREGATION IN A Ni--BASED SINGLE CRYSTAL SUPERALLOY DIRECTIONALLY SOLIDIFIED UNDER HIGH THERMAL GRADIENT. *Jinshu Xuebao/Acta Metallurgica Sinica*, **2010**, 2010, 77-83		13
118	Formation of Accumulated Misorientation During Directional Solidification of Ni-Based Single-Crystal Superalloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2019**, 50, 1607-1610	2.3	12
117	Effects of composition and solidification rate on growth striations in laser floating zone melted Al2O3/GdAlO3 eutectic ceramics. *Journal of the American Ceramic Society*, **2018**, 101, 3337-3346	3.8	12
116	The process analysis of seeding-grain selection and its effect on stray grain and orientation control. *Journal of Alloys and Compounds*, **2016**, 657, 341-347	5.7	12
115	Microstructure and cytotoxicity of Al2O3-ZrO2 eutectic bioceramics with high mechanical properties prepared by laser floating zone melting. *Ceramics International*, **2018**, 44, 17978-17985	5.1	12
114	Formation of stray grains during directional solidification of a superalloy AM3. *Applied Physics A: Materials Science and Processing*, **2014**, 114, 979-983	2.6	12
113	Influence of W, Re, Cr, and Mo on microstructural stability of the third generation Ni-based single crystal superalloys. *Journal of Materials Research*, **2016**, 31, 3381-3389	2.5	12
112	Dendrite growth and defects formation with increasing withdrawal rates in the rejoined platforms of Ni-based single crystal superalloys. *Vacuum*, **2019**, 161, 29-36	3.7	12

111	Investigation on solidification path of Ni-based single crystal superalloys with different Ru contents. *Materials Characterization*, **2017**, 130, 211-218	3.9	11
110	Microstructure tailoring and thermal stability of directionally solidified Al2O3/GdAlO3 binary eutectic ceramics by laser floating zone melting. *Ceramics International*, **2018**, 44, 7908-7916	5.1	11
109	Study of γ′ rafting under different stress states □A phase-field simulation considering viscoplasticity. *Journal of Alloys and Compounds*, **2018**, 769, 453-462	5.7	11
108	Investigation of the solidification behavior of Al2O3/YAG/YSZ ceramic in situ composite with off-eutectic composition. *Journal of the European Ceramic Society*, **2011**, 31, 1233-1239	6	11
107	Microstructure and field emission properties of the Si□TaSi2 eutectic in situ composites by electron beam floating zone melting technique. *Journal of Crystal Growth*, **2008**, 310, 71-77	1.6	11
106	One-step additive manufacturing and microstructure evolution of melt-grown Al2O3/GdAlO3/ZrO2 eutectic ceramics by laser directed energy deposition. *Journal of the European Ceramic Society*, **2021**, 41, 3547-3558	6	11
105	Negative influence of rafted γ′ phases on 750 °C/750 MPa creep in a Ni-based single crystal superalloy with 4% Re addition. *Materials Characterization*, **2018**, 137, 127-132	3.9	10
104	Microstructure control, competitive growth and precipitation rule in faceted Al2O3/Er3Al5O12 eutectic in situ composite ceramics prepared by laser floating zone melting. *Journal of the European Ceramic Society*, **2019**, 39, 1900-1908	6	10
103	Effect of growth rate on rod spacing and undercooling of Bridgman-grown Si□TaSi2 eutectic in situ composite. *Journal of Alloys and Compounds*, **2013**, 551, 643-648	5.7	10
102	Directional solidification of Ni□Ni3Si eutectic in situ composites by electron beam floating zone melting. *Physica B: Condensed Matter*, **2013**, 412, 70-73	2.8	10
101	Growth and characterization of nanostructured Al2O3/YAG/ZrO2 hypereutectics with large surfaces under laser rapid solidification. *Journal of Crystal Growth*, **2010**, 312, 3637-3641	1.6	10
100	Distribution control and formation mechanism of gas inclusions in directionally solidified Al2O3-Er3Al5O12-ZrO2 ternary eutectic ceramic by laser floating zone melting. *Journal of Materials Science and Technology*, **2021**, 66, 21-27	9.1	10
99	Insight of the dendrite deformation in Ni-based superalloys for increased misorientation along convergent boundaries. *Progress in Natural Science: Materials International*, **2018**, 28, 489-495	3.6	10
98	Processing, microstructure and performance of Al2O3/Er3Al5O12/ZrO2 ternary eutectic ceramics prepared by laser floating zone melting with ultra-high temperature gradient. *Ceramics International*, **2018**, 44, 4766-4776	5.1	9
97	Influence of Melt Superheating Treatment on Solidification Characteristics and Rupture Life of a Third-Generation Ni-Based Single-Crystal Superalloy. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2018**, 49, 1537-1546	2.5	9
96	Formation of Slivers in the Extended Cross-Section Platforms of Ni-Based Single Crystal Superalloy. *Advanced Engineering Materials*, **2018**, 20, 1701189	3.5	9
95	Investigation on a ramp solution heat treatment for a third generation nickel-based single crystal superalloy. *Journal of Alloys and Compounds*, **2017**, 723, 922-929	5.7	9
94	Laser zone remelting of Al2O3/Er3Al5O12 bulk oxide in situ composite thermal emission ceramics: Influence of rapid solidification. *Materials Research Bulletin*, **2013**, 48, 544-550	5.1	9

93	Microstructure and Fracture Toughness of Al2O3/Er3Al5O12 Eutectic Ceramic Prepared by Laser Zone Remelting. *Wuji Cailiao Xuebao/Journal of Inorganic Materials*, **2011**, 26, 841-846	1	9
92	Effect of melt thermal history on solidification behavior and microstructural characteristics of a third-generation Ni-based single crystal superalloy. *Journal of Alloys and Compounds*, **2016**, 688, 430-437	5.7	9
91	Formation of low-angle grain boundaries under different solidification conditions in the rejoined platforms of Ni-based single crystal superalloys. *Journal of Materials Research*, **2019**, 34, 251-260	2.5	9
90	Improving the efficiency of dye-sensitized solar cell via tuning the Au plasmons inlaid TiO2 nanotube array photoanode. *Journal of Applied Electrochemistry*, **2018**, 48, 1139-1149	2.6	8
89	Growth mechanism of the directionally solidified Si□TaSi2 eutectic in situ composite. *Journal of Crystal Growth*, **2009**, 311, 2555-2559	1.6	8
88	Effects of laser processing parameters on solidification microstructures of ternary Al2O3/YAG/ZrO2 eutectic in situ composite and its thermal property. *Transactions of Nonferrous Metals Society of China*, **2009**, 19, 1533-1538	3.3	8
87	Microstructure evolution of Ni, Cr, Al□TaC in situ composite directionally solidified under a high temperature gradient. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 311, 200-204	5.3	8
86	EFFECTS OF Re AND Ru ON MICROSTRUCTURE AND SEGREGATION OF Ni--BASED SINGLE--CRYSTAL SUPERALLOYS. *Jinshu Xuebao/Acta Metallurgica Sinica*, **2013**, 48, 845-852		8
85	A multifunctional electrolyte with highly-coordinated solvation structure-in-nonsolvent for rechargeable lithium batteries. *Journal of Energy Chemistry*, **2020**, 51, 362-371	12	8
84	Investigation on solution heat treatment response and γ′ solvus temperature of a Mo-rich second generation Ni based single crystal superalloy. *Intermetallics*, **2020**, 125, 106896	3.5	8
83	Effect of Co on microstructural stability of the third generation Ni-based single crystal superalloys. *Journal of Materials Research*, **2016**, 31, 1328-1337	2.5	8
82	Formation of Lateral Sliver Defects in the Platform Region of Single-Crystal Superalloy Turbine Blades. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2019**, 50, 1119-1124	2.3	8
81	Solidification behavior of Re- and Ru-containing Ni-based single-crystal superalloys with thermal and metallographic analysis. *Rare Metals*, **2017**, 36, 792-798	5.5	7
80	Simulation of stray grain formation in Ni-base single crystal turbine blades fabricated by HRS and LMC techniques. *China Foundry*, **2017**, 14, 75-79	0.8	7
79	Precipitation behavior and chemical composition of secondary γ′ precipitates in a Re-containing Ni-based single crystal superalloy. *Intermetallics*, **2020**, 119, 106725	3.5	7
78	Competitive converging dendrites growth depended on dendrite spacing distribution of Ni-based bi-crystal superalloys. *Journal of Alloys and Compounds*, **2018**, 735, 1878-1884	5.7	7
77	Enhanced Grain Refinement and Porosity Control of the Polycrystalline Superalloy by a Modified Thermally Controlled Solidification . *Advanced Engineering Materials*, **2016**, 18, 1785-1791	3.5	7
76	Effect of solidification path on the microstructure of Al2O3□2O3□rO2 ternary oxide eutectic ceramic system. *Journal of the European Ceramic Society*, **2012**, 32, 3137-3142	6	7

75	Segregation behavior of alloying elements in different oriented single crystal nickel based superalloys. *Materials Letters*, **2009**, 63, 2635-2638	3.3	7
74	Microstructure characteristics and interface morphology evolvement of Si-TaSi2 eutectic in situ composite for field emission. *Journal of Crystal Growth*, **2007**, 299, 248-253	1.6	7
73	The preferential orientation of the directionally solidified Si–TaSi2 eutectic in situ composite. *Journal of Crystal Growth*, **2007**, 309, 93-96	1.6	7
72	Fabrication and Characterization of Al2O3/Y3Al5O12 Eutectic in situ Composite Ceramics by Double Side Laser Zone Remelting Method. *Wuji Cailiao Xuebao/Journal of Inorganic Materials*, **2012**, 27, 843-848	1	7
71	Influence of Secondary Dendrite Orientation on the Evolution of Misorientation in the Platform Region of Single Crystal Superalloy Turbine Blades. *Advanced Engineering Materials*, **2019**, 21, 1800933	3.5	7
70	Solidification characteristics and as-cast microstructures of a Ru-containing nickel-based single crystal superalloy. *Journal of Materials Research and Technology*, **2021**, 11, 474-486	5.5	7
69	Influence of cooling rate on the formation of bimodal microstructures in nickel-base superalloys during continuous two-step aging. *Computational Materials Science*, **2018**, 149, 14-20	3.2	6
68	Microstructure and property of directionally solidified Ni–Si hypereutectic alloy. *Applied Physics A: Materials Science and Processing*, **2016**, 122, 1	2.6	6
67	Preparation of Inoculants Used in Superalloy and Analysis of the Atomic Matching Models. *Journal of Materials Science and Technology*, **2013**, 29, 387-392	9.1	6
66	Three-dimensional elastoplastic phase-field simulation of γ′ rafting and creep deformation. *Journal of Materials Science*, **2017**, 52, 13940-13947	4.3	6
65	Interaction between Re and W on the microstructural stability of Ni-based single-crystal superalloys. *Materials Science and Technology*, **2017**, 33, 377-380	1.5	6
64	Grain boundary precipitation behavior in Re-containing nickel-based directionally solidified superalloys with carbon and boron additions. *Vacuum*, **2020**, 179, 109483	3.7	6
63	Eutectic growth behavior with regular arrangement in the faceted Al2O3/Er3Al5O12 irregular eutectic system at low growth rate. *Scripta Materialia*, **2019**, 162, 49-53	5.6	6
62	Theoretical prediction and experimental comparison for eutectic growth of Al2O3/GdAlO3 faceted eutectics. *Journal of the European Ceramic Society*, **2019**, 39, 3837-3842	6	5
61	The Formation Mechanism, Influencing Factors and Processing Control of Stray Grains in Nickel-Based Single Crystal Superalloys **2016**, 293-301		5
60	Solidification microstructure of Bridgman-grown Si–TaSi2 eutectic in situ composite. *Journal of Crystal Growth*, **2013**, 376, 59-65	1.6	5
59	Mechanical Properties of the TaSi2 Fibers by Nanoindentation. *Journal of Materials Science and Technology*, **2010**, 26, 65-68	9.1	5
58	REFINED DENDRITE AND PRECISE ORIENTATION OF NICKEL-BASED MONOCRYSTAL SUPERALLOY WITH MELT SUPERHEATING TREATMENT. *International Journal of Modern Physics B*, **2009**, 23, 1105-1109	1.1	5

57	Effects of boron and zirconium additions on the fluidity, microstructure and mechanical properties of IN718C superalloy. *Journal of Materials Research*, **2016**, 31, 3557-3566	2.5	5
56	Orientation controlling of Ni-based single-crystal superalloy by a novel method: grain selection assisted by un-melted reused seed. *Journal of Materials Research and Technology*, **2019**, 8, 1347-1352	5.5	5
55	Peritectic reaction during directional solidification in a Ru-containing nickel-based single crystal superalloy. *Journal of Alloys and Compounds*, **2021**, 870, 159419	5.7	5
54	Preparation of large-size Al2O3/GdAlO3/ZrO2 ternary eutectic ceramic rod by laser directed energy deposition and its microstructure homogenization mechanism. *Journal of Materials Science and Technology*, **2021**, 85, 218-223	9.1	5
53	Halo formation in directionally solidified Al2O3-Er3Al5O12 off-eutectic in situ composite ceramics. *Materials Characterization*, **2019**, 150, 31-37	3.9	4
52	Nucleation Crystallography of Ni Grains on CrFeNb Inoculants Investigated by Edge-to-Edge Matching Model in an IN718 Superalloy. *Advanced Engineering Materials*, **2018**, 20, 1700568	3.5	4
51	Effects of grain refinement on cast structure and tensile properties of superalloy K4169 at high pouring temperature. *China Foundry*, **2016**, 13, 101-106	0.8	4
50	Microstructure evolution during heat treatment of superalloys loaded with different amounts of carbon. *Journal of Materials Research*, **2015**, 30, 2064-2072	2.5	4
49	Fabrication and Characterization of Al2O3/GdAlO3 Eutectic Ceramic In Situ Composite by Laser Zone Remelting. *Advanced Materials Research*, **2010**, 160-162, 773-776	0.5	4
48	Evolutions of rod diameter, molten zone and temperature gradient of oxide eutectic ceramics during laser floating zone melting. *Ceramics International*, **2020**, 46, 18750-18757	5.1	4
47	Effect of aging temperature on the secondary γ′ precipitation in a model Ni based single crystal superalloy. *Journal of Alloys and Compounds*, **2020**, 836, 155486	5.7	4
46	Phase-field simulation of γ′ coarsening behavior in cobalt-based superalloy. *Computational Materials Science*, **2021**, 191, 110358	3.2	4
45	Phase growth patterns for Al2O3/GdAlO3 eutectics over wide ranges of compositions and solidification rates. *Journal of Materials Science and Technology*, **2021**, 65, 89-98	9.1	4
44	Unveiling the Re segregation at γ/γ′ interface in Ni-based superalloy. *Scripta Materialia*, **2021**, 204, 114131	5.6	4
43	Investigation of grain competitive growth during directional solidification of single-crystal nickel-based superalloys. *Applied Physics A: Materials Science and Processing*, **2015**, 120, 793-800	2.6	3
42	Microstructure and field emission property of Bridgman-grown Si–TaSi2 eutectic in situ composite. *Materials Letters*, **2013**, 100, 212-215	3.3	3
41	Microstructural evolution of aluminium–copper alloys during the downward directional solidification process. *International Journal of Materials Research*, **2014**, 105, 168-176	0.5	3
40	Processing, microstructure, and properties of laser remelted Al2O3/Y3Al5O12(YAG) eutectic in situ composite. *Transactions of Nonferrous Metals Society of China*, **2007**, 17, 1259-1264	3.3	3

39	Interface Morphologies and Microstructure of a Single Crystal Superalloy under High Thermal Gradient Directional Solidification. *Materials Science Forum*, **2005**, 475-479, 665-668	0.4	3
38	The frequency effect on electromagnetic confinement and shaping of liquid metal. *Science and Technology of Advanced Materials*, **2001**, 2, 205-208	7.1	3
37	Directly fabricated Al2O3/GdAlO3 eutectic ceramic with large smooth surface by selective laser melting: Rapid solidification behavior and thermal field simulation. *Journal of the European Ceramic Society*, **2021**, 42, 1088-1088	6	3
36	Effect of substituting Mo for W on γ/γ′ partitioning behaviors of alloying elements in heat-treated second generation Ni based single crystal superalloys: An atom probe tomography study. *Intermetallics*, **2021**, 134, 107198	3.5	3
35	Effect of an abrupt change in pulling rate on microstructures of directionally solidified Al2O3-Er3Al5O12 eutectic and off-eutectic composite ceramics. *Ceramics International*, **2019**, 45, 6632-6638	5.1	3
34	Effect of withdrawal rate on precipitation characteristics of MC-type carbides in a nickel-based directionally solidified superalloy with high Re content. *Vacuum*, **2021**, 183, 109800	3.7	3
33	The Element Segregation Between γ/γ′ Phases in a Ni-Based Single Crystal Superalloy Studied by 3D-APT and Its Potential Impact on Local Interfacial Misfit Strain. *Metals and Materials International*, **2021**, 27, 1892-1896	2.4	3
32	Densification and microstructural evolution of bulk Al2O3/Y3Al5O12(YAG) eutectic ceramic fabricated by spark plasma sintering. *Ceramics International*, **2019**, 45, 12337-12343	5.1	2
31	Abnormal Grain Refinement Behavior in High-Pressure Die Casting of Pure Mg with Addition of Zr as Grain Refiner. *Jom*, **2018**, 70, 2555-2560	2.1	2
30	Inhibition of stray grains at melt-back region for re-using seed to prepare Ni-based single crystal superalloys. *Progress in Natural Science: Materials International*, **2019**, 29, 582-586	3.6	2
29	Orientation evolution of single-crystal superalloys under different solidification interface. *Applied Physics A: Materials Science and Processing*, **2014**, 117, 1971-1975	2.6	2
28	Growth characteristics of directionally solidified Al2O3/YAG/ZrO2 ternary hypereutectic in situ composites under ultra-high temperature gradient. *International Journal of Minerals, Metallurgy and Materials*, **2011**, 18, 121-125	3.1	2
27	Effect of Melt Overheating History on the Microstructure of Ni-Base Single Crystal Superalloy. *Advanced Materials Research*, **2011**, 217-218, 692-696	0.5	2
26	Microstructure and properties of Si-TaSi2 eutectic in situ composite for field emission. *Science Bulletin*, **2007**, 52, 984-989		2
25	THE RELAXATION PHENOMENON DURING MELT SUPERHEATING TREATMENT OF DZ125 ALLOY. *Jinshu Xuebao/Acta Metallurgica Sinica*, **2010**, 46, 674-680		2
24	MICROSTRUCTURE OF Al2O3/YAG/ZrO2 HYPEREUTECTIC ALLOY DIRECTIONALLY SOLIDIFIED BY LASER FLOATING ZONE METHOD. *Jinshu Xuebao/Acta Metallurgica Sinica*, **2013**, 48, 220-226		2
23	Highly enhanced aging resistance of rapidly solidified zirconia toughened alumina bioceramics with refined eutectic microstructure. *Journal of the European Ceramic Society*, **2020**, 40, 2497-2503	6	2
22	Microstructure on remelting interface of Ni/W heterogeneous seed in preparing Ni-based single crystal superalloys. *Journal of Materials Research and Technology*, **2021**, 12, 264-270	5.5	2

21	Coupling phase field with creep damage to study □ evolution and creep deformation of single crystal superalloys. *Journal of Materials Science and Technology*, **2021**, 71, 129-137	9.1	2
20	The effects of misfit and diffusivity on □ rafting in Re and Ru containing Nickel based single crystal superalloys□ details in thermodynamics and dynamics. *Vacuum*, **2021**, 183, 109839	3.7	2
19	Preparation, microstructure characterisation and corrosion behaviour of directionally grown TaSi2 fibre arrays with sharp tip fabricated by selective wet etching. *Corrosion Science*, **2013**, 75, 287-292	6.8	1
18	Preparation Development of High-Quality Solar-Grade Multi-Crystalline Silicon by Directional Solidification. *Advanced Materials Research*, **2011**, 311-313, 1389-1392	0.5	1
17	Solidification Characteristics and as-Cast Microstructure of Rhenium-Containing Single Crystal Superalloys under High Thermal Gradient Directional Solidification. *Advanced Materials Research*, **2011**, 278, 423-427	0.5	1
16	Directional Solidification and Characterization of Al2O3/Er3Al5O12 Eutectic In Situ Composite by Laser Zone Remelting. *Materials Science Forum*, **2010**, 654-656, 1347-1350	0.4	1
15	On the tungsten segregation at /□ interface in a Ni-based single-crystal superalloy. *Vacuum*, **2022**, 197, 110863	3.7	1
14	Insights into high thermal stability of laser additively manufactured Al2O3/GdAlO3/ZrO2 eutectic ceramics under high temperatures. *Additive Manufacturing*, **2021**, 102425	6.1	1
13	Study on Synthesis and Adsorption Properties of ReO Ion-Imprinted Polymer. *ACS Omega*, **2020**, 5, 24356-24366	3.7	1
12	Formation mechanisms and control method for stray grains at melt-back region of Ni-based single crystal seed. *Progress in Natural Science: Materials International*, **2021**, 31, 624-632	3.6	1
11	Double minimum creep processing and mechanism for □ strengthened cobalt-based superalloy. *Journal of Materials Science and Technology*, **2022**, 112, 123-129	9.1	0
10	Collaborative enhancement of luminous efficacy and fracture toughness based on interface design of Al2O3/YAG:Ce3+ eutectic phosphor ceramic grown by laser floating zone melting. *Ceramics International*, **2022**, 48, 10144-10154	5.1	0
9	Synergistic effects of Re and Ta on the distribution of W in Ni-based superalloys. *Intermetallics*, **2022**, 147, 107609	3.5	0
8	Hypereutectic Al2O3/YAG/ZrO2 In Situ Composite Prepared by Horizontal Laser Zone Melting. *High Temperature Materials and Processes*, **2017**, 36, 23-28	0.9	
7	Microstructure and Element Segregation of Ni-Base Superalloy Casting with Radiation and Liquid-Metal Cooling. *Materials Science Forum*, **2015**, 816, 608-612	0.4	
6	Effects of Refiners on Grain Structures of Superalloy in 718 at High Pouring Temperature **2014**, 193-202		
5	DTA Analysis on the Solidification Behavior of the Al2O2-Y2O3-ZrO2 Ternary Oxide System and Microstructural Investigation. *Materials Science Forum*, **2012**, 706-709, 2424-2427	0.4	
4	Research Progress on Ultrahigh Temperature Oxide Eutectic Ceramics by Laser Additive Manufacturing. *Wuji Cailiao Xuebao/Journal of Inorganic Materials*, **2022**, 37, 255	1	

3	Grain Refinement on Microstructure and Mechanical Properties of IN718 Superalloy. *Minerals, Metals and Materials Series*, **2018**, 275-286	0.3
2	Microstructure of Al2O3/YAG/ZrO2 Eutectic In Situ Composite Prepared by Laser Floating Zone Melting	217-224
1	Different roles of stacking fault energy and diffusivity in the creep performance of nickel-based single-crystal superalloys. *Materials Research Express*, **2021**, 8, 036510	1.7