

Junjie Li

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

95
papers

1,728
citations

23
h-index

39
g-index

99
ext. papers

2,282
ext. citations

4.6
avg, IF

5.11
L-index

#	Paper	IF	Citations
95	Crossover from lamellar to intersected ice morphologies within a single ice crystal during unidirectional freezing of an aqueous solution. <i>Journal of Crystal Growth</i> , 2022 , 577, 126398	1.6	1
94	Novel B2-strengthening NiCoCrAl medium-entropy alloys with prominent mechanical performance. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022 , 840, 142856	5.3	1
93	Non-monotonous effect of pre-strain on the precipitates and strengthening mechanisms of high-entropy alloys. <i>Journal of Alloys and Compounds</i> , 2022 , 906, 164338	5.7	0
92	Connections between structural characteristics and crystal nucleation of AlSi glasses near glass transition temperature. <i>Journal of Non-Crystalline Solids</i> , 2022 , 588, 121637	3.9	0
91	Phase selection of BCC/B2 phases for the improvement of tensile behaviors in FeNiCrAl medium entropy alloy. <i>Journal of Alloys and Compounds</i> , 2022 , 165382	5.7	0
90	Understanding sustained coarsening driven by cyclic phase transformation in additively manufactured Ti-6Al-4V. <i>Journal of Alloys and Compounds</i> , 2022 , 914, 165322	5.7	0
89	Competitive growth of diverging columnar grains during directional solidification: A three-dimensional phase-field study. <i>Computational Materials Science</i> , 2021 , 111061	3.2	1
88	A neural-network based framework of developing cross interaction in alloy embedded-atom method potentials: application to Zr-Nb alloy. <i>Journal of Physics Condensed Matter</i> , 2021 , 33, 084004	1.8	0
87	A microstructure-informatic strategy for Vickers hardness forecast of austenitic steels from experimental data. <i>Materials and Design</i> , 2021 , 201, 109497	8.1	5
86	Substrate design to minimize residual stresses in Directed Energy Deposition AM processes. <i>Materials and Design</i> , 2021 , 202, 109525	8.1	19
85	Microstructure and mechanical properties of forging-additive hybrid manufactured Ti6Al4V alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 811, 140984	5.3	7
84	The formation mechanism of special globular surface grain during the solidification of laser surface remelted near titanium alloys. <i>Computational Materials Science</i> , 2021 , 191, 110353	3.2	2
83	The planar instability during unidirectional freezing of a macromolecular polymer solution: Diffusion-controlled or not?. <i>Physica B: Condensed Matter</i> , 2021 , 610, 412923	2.8	1
82	Design Fe-based Eutectic Medium-Entropy Alloys Fe2NiCrNbx. <i>Acta Metallurgica Sinica (English Letters)</i> , 2021 , 34, 1103-1108	2.5	2
81	Distinct Recrystallization Kinetics in NiCoCrBe-Based Single-Phase High-Entropy Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021 , 52, 3799-3810 ^{2,3}	2.3	1
80	Quantitative determination of tip undercooling of faceted sea ice with experiments. <i>Journal of Physics Condensed Matter</i> , 2021 , 33,	1.8	2
79	Elemental partitioning as a route to design precipitation-hardened high entropy alloys. <i>Journal of Materials Science and Technology</i> , 2021 , 72, 52-60	9.1	5

78	Tailoring nanoprecipitates for ultra-strong high-entropy alloys via machine learning and prestrain aging. <i>Journal of Materials Science and Technology</i> , 2021 , 69, 156-167	9.1	16
77	Atomistic Mechanism Underlying Nucleation in AlCu Alloys with Different Compositions and Cooling Rates. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 3480-3494	3.8	4
76	Tilting Behavior of Lamellar Ice Tip during Unidirectional Freezing of Aqueous Solutions. <i>Langmuir</i> , 2021 , 37, 10579-10587	4	0
75	Remelting induced fully-equiaxed microstructures with anomalous eutectics in the additive manufactured Ni ₃₂ Co ₃₀ Cr ₁₀ Fe ₁₀ Al ₁₈ eutectic high-entropy alloy. <i>Scripta Materialia</i> , 2021 , 201, 113952	5.6	12
74	Heterogeneous microstructure of the bonding zone and its dependence on preheating in hybrid manufactured Ti-6Al-4V. <i>Materials Research Letters</i> , 2021 , 9, 422-428	7.4	1
73	Origins of the mechanical property heterogeneity in a hybrid additive manufactured Hastelloy X. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 823, 141716	5.3	5
72	Single Ice Crystal Growth with Controlled Orientation during Directional Freezing. <i>Journal of Physical Chemistry B</i> , 2021 , 125, 970-979	3.4	9
71	Phase-field simulation of microstructure evolution in electron beam additive manufacturing. <i>European Physical Journal E</i> , 2020 , 43, 35	1.5	1
70	Effect of secondary arm orientation on unusual overgrowth at converging grain boundary during directional solidification in 3D. <i>Computational Materials Science</i> , 2020 , 176, 109531	3.2	3
69	A precipitation-strengthened high-entropy alloy for additive manufacturing. <i>Additive Manufacturing</i> , 2020 , 35, 101410	6.1	8
68	Phase-field study on the effect of initial particle aggregation on the transient coarsening behaviors. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2020 , 28, 075007	2	1
67	Anomalous effect of lattice misfit on the coarsening behavior of multicomponent L12 phase. <i>Scripta Materialia</i> , 2020 , 183, 111-116	5.6	6
66	Uncovering the eutectics design by machine learning in the AlCoCrFeNi high entropy system. <i>Acta Materialia</i> , 2020 , 182, 278-286	8.4	55
65	Modeling of the Effect of the Building Strategy on the Thermomechanical Response of Ti-6Al-4V Rectangular Parts Manufactured by Laser Directed Energy Deposition. <i>Metals</i> , 2020 , 10, 1643	2.3	8
64	Dislocation nucleation from Zr/Nb bimetal interfaces cooperating with the dynamic evolution of interfacial dislocations. <i>International Journal of Plasticity</i> , 2020 , 135, 102830	7.6	5
63	Direct laser deposited bulk CoCrFeNiNbx high entropy alloys. <i>Intermetallics</i> , 2019 , 114, 106592	3.5	26
62	Molecular dynamics investigation of the local structure in iron melts and its role in crystal nucleation during rapid solidification. <i>Physical Chemistry Chemical Physics</i> , 2019 , 21, 4122-4135	3.6	17
61	A casting eutectic high entropy alloy with superior strength-ductility combination. <i>Materials Letters</i> , 2019 , 253, 268-271	3.3	50

60	The incredible excess entropy in high entropy alloys. <i>Scripta Materialia</i> , 2019 , 168, 19-22	5.6	9
59	Interactions between Nanoparticles and Polymers in the Diffusion Boundary Layer during Freezing Colloidal Suspensions. <i>Langmuir</i> , 2019 , 35, 10446-10452	4	4
58	Atomic-scale dynamic observation reveals temperature-dependent multistep nucleation pathways in crystallization. <i>Nanoscale Horizons</i> , 2019 , 4, 1302-1309	10.8	8
57	Yielding and jerky plasticity of tilt grain boundaries in high-temperature graphene. <i>Carbon</i> , 2019 , 153, 242-256	10.4	6
56	Grouping strategy in eutectic multi-principal-component alloys. <i>Materials Chemistry and Physics</i> , 2019 , 221, 138-143	4.4	19
55	Finite element analysis and experimental validation of the thermomechanical behavior in laser solid forming of Ti-6Al-4V. <i>Additive Manufacturing</i> , 2018 , 21, 30-40	6.1	49
54	Speed-dependent ice bandings in freezing colloidal suspensions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018 , 543, 126-132	5.1	3
53	Coupling eutectic nucleation mechanism investigated by phase field crystal model. <i>Acta Materialia</i> , 2018 , 145, 175-185	8.4	15
52	Abnormal β - β' phase transformation in the CoCrFeNiNb _{0.25} high entropy alloy. <i>Scripta Materialia</i> , 2018 , 146, 281-285	5.6	23
51	Revealing the Selection of β and β' Phases in CoCrFeNiMox High Entropy Alloys by CALPHAD. <i>Journal of Phase Equilibria and Diffusion</i> , 2018 , 39, 446-453	1	17
50	Solid solubility, precipitates, and stacking fault energy of micro-alloyed CoCrFeNi high entropy alloys. <i>Journal of Alloys and Compounds</i> , 2018 , 769, 490-502	5.7	28
49	The intrinsic mechanism of corrosion resistance for FCC high entropy alloys. <i>Science China Technological Sciences</i> , 2018 , 61, 189-196	3.5	24
48	Two-way design of alloys for advanced ultra supercritical plants based on machine learning. <i>Computational Materials Science</i> , 2018 , 155, 331-339	3.2	17
47	Non-uniplanar competitive growth of columnar dendritic grains during directional solidification in quasi-2D and 3D configurations. <i>Materials and Design</i> , 2018 , 151, 141-153	8.1	19
46	In situ observation of the unstable lens growth in freezing colloidal suspensions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018 , 553, 681-688	5.1	4
45	Tuning the defects in face centered cubic high entropy alloy via temperature-dependent stacking fault energy. <i>Scripta Materialia</i> , 2018 , 155, 134-138	5.6	29
44	Solid solution island of the Co-Cr-Fe-Ni high entropy alloy system. <i>Scripta Materialia</i> , 2017 , 131, 42-46	5.6	59
43	Atomistic investigation of homogeneous nucleation in undercooled liquid. <i>Philosophical Magazine</i> , 2017 , 97, 2255-2267	1.6	

42	Uncoupling Growth Mechanisms of Binary Eutectics during Rapid Solidification. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 8204-8210	3.8	4
41	Elastic strain response in the modified phase-field-crystal model. <i>Chinese Physics B</i> , 2017 , 26, 090702	1.2	5
40	Dynamic particle packing in freezing colloidal suspensions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017 , 531, 93-98	5.1	10
39	Branching-induced grain boundary evolution during directional solidification of columnar dendritic grains. <i>Acta Materialia</i> , 2017 , 136, 148-163	8.4	25
38	Phase-field-crystal investigation of the morphology of a steady-state dendrite tip on the atomic scale. <i>Physical Review E</i> , 2017 , 95, 062803	2.4	6
37	Size effects of shear deformation response for nano-single crystals examined by the phase-field-crystal model. <i>Computational Materials Science</i> , 2017 , 127, 121-127	3.2	5
36	Phase separation of metastable CoCrFeNi high entropy alloy at intermediate temperatures. <i>Scripta Materialia</i> , 2017 , 126, 15-19	5.6	165
35	Material microstructures analyzed by using gray level Co-occurrence matrices. <i>Chinese Physics B</i> , 2017 , 26, 098104	1.2	3
34	Designing eutectic high entropy alloys of CoCrFeNiNb x. <i>Journal of Alloys and Compounds</i> , 2016 , 656, 284-289	5.7	222
33	Kinetic Pathways and Mechanisms of Two-Step Nucleation in Crystallization. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 5008-5014	6.4	42
32	Existence and forming mechanism of metastable phase in crystallization. <i>Computational Materials Science</i> , 2016 , 122, 167-176	3.2	3
31	Strengthening the CoCrFeNiNb0.25 high entropy alloy by FCC precipitate. <i>Journal of Alloys and Compounds</i> , 2016 , 667, 53-57	5.7	80
30	Interfacial undercooling in solidification of colloidal suspensions: analyses with quantitative measurements. <i>Scientific Reports</i> , 2016 , 6, 28434	4.9	23
29	Kinetic ways of tailoring phases in high entropy alloys. <i>Scientific Reports</i> , 2016 , 6, 34628	4.9	24
28	Interfacial free energy adjustable phase field crystal model for homogeneous nucleation. <i>Soft Matter</i> , 2016 , 12, 4666-73	3.6	17
27	Stability of lamellar structures in CoCrFeNiNbx eutectic high entropy alloys at elevated temperatures. <i>Materials and Design</i> , 2016 , 104, 259-264	8.1	88
26	The phase stability of Ni ₂ CrFeMox multi-principal-component alloys with medium configurational entropy. <i>Materials and Design</i> , 2015 , 85, 1-6	8.1	24
25	Preparation of poly (L-lactic acid) with aligned structures by unidirectional freezing. <i>Polymers for Advanced Technologies</i> , 2015 , 26, 606-612	3.2	12

24	Strain mapping in nanocrystalline grains simulated by phase field crystal model. <i>Philosophical Magazine</i> , 2015 , 95, 973-984	1.6	8
23	Effect of initial particle size distribution on the dynamics of transient Ostwald ripening: A phase field study. <i>Acta Materialia</i> , 2015 , 90, 10-26	8.4	32
22	In situ observation the interface undercooling of freezing colloidal suspensions with differential visualization method. <i>Review of Scientific Instruments</i> , 2015 , 86, 084901	1.7	19
21	Modified phase-field-crystal model for solid-liquid phase transitions. <i>Physical Review E</i> , 2015 , 92, 013309	2.4	12
20	Effects of a disconnection dipole on the shear-coupled grain boundary migration. <i>Computational Materials Science</i> , 2015 , 109, 253-257	3.2	2
19	Atomic investigation of steady-state dendrite tips by using phase-field crystal method. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 84, 012070	0.4	1
18	Precisely detecting atomic position of atomic intensity images. <i>Ultramicroscopy</i> , 2015 , 150, 74-78	3.1	3
17	Phase-field-crystal simulation of nonequilibrium crystal growth. <i>Physical Review E</i> , 2014 , 89, 012405	2.4	27
16	Anomalous overgrowth of converging dendrites during directional solidification. <i>Journal of Crystal Growth</i> , 2014 , 402, 210-214	1.6	25
15	GPU-accelerated phase field simulation of directional solidification. <i>Science China Technological Sciences</i> , 2014 , 57, 1191-1197	3.5	3
14	Unique visualization of multiply oriented lattice structures using a continuous wavelet transform. <i>Computer Physics Communications</i> , 2013 , 184, 2489-2493	4.2	7
13	Phase-field study of competitive dendritic growth of converging grains during directional solidification. <i>Acta Materialia</i> , 2012 , 60, 1478-1493	8.4	103
12	Phase field modeling the selection mechanism of primary dendritic spacing in directional solidification. <i>Acta Materialia</i> , 2012 , 60, 1957-1964	8.4	39
11	Competitive grain growth in directional solidification investigated by phase field simulation. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 33, 012098	0.4	1
10	Predicting growth direction of tilted dendritic arrays during directional solidification. <i>Journal of Crystal Growth</i> , 2011 , 328, 108-113	1.6	15
9	Quantitative investigation of cellular growth in directional solidification by phase-field simulation. <i>Physical Review E</i> , 2011 , 84, 041604	2.4	15
8	Phase field modeling for dendritic morphology transition and micro-segregation in multi-component alloys. <i>Science in China Series D: Earth Sciences</i> , 2009 , 52, 344-351		1
7	Investigation into microsegregation during solidification of a binary alloy by phase-field simulations. <i>Journal of Crystal Growth</i> , 2009 , 311, 1217-1222	1.6	7

6	Phase-field simulation of microstructure development involving nucleation and crystallographic orientations in alloy solidification. <i>Journal of Crystal Growth</i> , 2007 , 309, 65-69	1.6	31
5	Global-Oriented Strategy for Searching Ultrastrength Martensitic Stainless Steels. <i>Advanced Theory and Simulations</i> , 2100411	3.5	1
4	Simulation-assisted investigation on the formation of layer bands and the microstructural evolution in directed energy deposition of Ti6Al4V blocks. <i>Virtual and Physical Prototyping</i> , 1-17	10.1	8
3	On Ti6Al4V Microsegregation in Electron Beam Additive Manufacturing with Multiphase-Field Simulation Coupled with Thermodynamic Data. <i>Acta Metallurgica Sinica (English Letters)</i> , 1	2.5	1
2	Deformation Behaviors of an Additive-Manufactured Ni ₃₂ Co ₃₀ Cr ₁₀ Fe ₁₀ Al ₁₈ Eutectic High Entropy Alloy at Ambient and Elevated Temperatures. <i>Acta Metallurgica Sinica (English Letters)</i> , 1	2.5	
1	Eutectic dual-phase microstructure modulated porous high-entropy alloys as high-performance bifunctional electrocatalysts for water splitting. <i>Journal of Materials Chemistry A</i> ,	13	2