Jinglian Du

List of Publications by Year
in descending order

41 papers	843 citations	471061 17 h-index	500791 28 g-index
41 all docs	41 docs citations	41 times ranked	491 citing authors

#	Article	IF	Citations
1	Phase stability, elastic and electronic properties of Cuâ€“Zr binary system intermetallic compounds: A first-principles study. Journal of Alloys and Compounds, 2014, 588, 96-102.	2.8	64
2	First-principles studies on structural, mechanical, thermodynamic and electronic properties of Niâ€“Zr intermetallic compounds. Intermetallics, 2014, 54, 110-119.	1.8	64
3	Atomistic underpinnings for growth direction and pattern formation of hcp magnesium alloy dendrite. Acta Materialia, 2018, 161, 35-46.	3.8	52
4	A Phase-Field Lattice-Boltzmann Study on Dendritic Growth of Al-Cu Alloy Under Convection. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 3603-3615.	1.0	47
5	Dendritic Growth Under Natural and Forced Convection in Al-Cu Alloys: From Equiaxed to Columnar Dendrites and from 2D to 3D Phase-Field Simulations. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 1514-1526.	1.0	45
6	Novel three dimensional topological nodal line semimetallic carbon. Carbon, 2016, 98, 468-473.	5.4	36
7	Determining characteristic principal clusters in the â€œcluster-plus-glue-atomâ€•model. Acta Materialia, 2014, 75, 113-121.	3.8	34
8	Atomic cluster structures, phase stability and physicochemical properties of binary Mg-X (X= Ag, Al,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.8	34
9	Multiphase and multiphysics modeling of dendrite growth and gas porosity evolution during solidification. Acta Materialia, 2021, 214, 117005.	3.8	34
10	Composition-structure-property correlations of complex metallic alloys described by the â€œcluster-plus-glue-atomâ€•model. Applied Materials Today, 2017, 7, 13-46.	2.3	33
11	Cluster characteristics and physical properties of binary Alâ€“Zr intermetallic compounds from first principles studies. Computational Materials Science, 2015, 103, 170-178.	1.4	30
12	Correlation between crystallographic anisotropy and dendritic orientation selection of binary magnesium alloys. Scientific Reports, 2017, 7, 13600.	1.6	29
13	Atomistic Determination of Anisotropic Surface Energy-Associated Growth Patterns of Magnesium Alloy Dendrites. ACS Omega, 2017, 2, 8803-8809.	1.6	27
14	Mechanism of the growth pattern formation and three-dimensional morphological transition of hcp magnesium alloy dendrite. Physical Review Materials, 2018, 2, .	0.9	23
15	Lamellar eutectic growth under forced convection: A phase-field lattice-Boltzmann study based on a modified Jackson-Hunt theory. Physical Review E, 2018, 98, .	0.8	21
16	Phase-Field Modeling of Microstructure Evolution in the Presence of Bubble During Solidification. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 1023-1037.	1.1	21
17	Growth pattern and orientation selection of magnesium alloy dendrite: From 3-D experimental characterization to theoretical atomistic simulation. Materials Today Communications, 2017, 13, 155-162.	0.9	17
18	Dependence of Lamellar Eutectic Growth with Convection on Boundary Conditions and Geometric Confinement: A Phase-Field Lattice-Boltzmann Study. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 517-530.	1.0	17

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19	First principles studies on the structural, elastic, electronic properties and heats of formation of Mgâ€“AE (AEÂ=ÂCa, Sr, Ba) intermetallics. Intermetallics, 2013, 32, 156-161.	1.8	16
20	Application of non-equilibrium dendrite growth model considering thermo-kinetic correlation in twin-roll casting. Journal of Materials Science and Technology, 2020, 44, 209-222.	5.6	16
21	Phase-field lattice-Boltzmann investigation of dendritic evolution under different flow modes. Philosophical Magazine, 2019, 99, 2920-2940.	0.7	15
22	Effect of additional solute elements (X= Al, Ca, Y, Ba, Sn, Gd and Zn) on crystallographic anisotropy during the dendritic growth of magnesium alloys. Journal of Alloys and Compounds, 2019, 775, 322-329.	2.8	15
23	Mechanism of hydrogen production via water splitting on 3C-SiCâ€™s different surfaces: A first-principles study. Computational Materials Science, 2014, 95, 451-455.	1.4	14
24	Conservative phase-field method with a parallel and adaptive-mesh-refinement technique for interface tracking. Physical Review E, 2019, 100, 023305.	0.8	14
25	Abnormal solute distribution near the eutectic triple point. Scripta Materialia, 2019, 165, 64-67.	2.6	13
26	Solution to Multiscale and Multiphysics Problems: A Phaseâ€Field Study of Fully Coupled Thermalâ€Soluteâ€Convection Dendrite Growth. Advanced Theory and Simulations, 2021, 4, 2000251.	1.3	13
27	Three-dimensional thermosolutal simulation of dendritic and eutectic growth. Computational Materials Science, 2020, 171, 109274.	1.4	12
28	Hidden electronic rule in the â€œcluster-plus-glue-atomâ€•model. Scientific Reports, 2016, 6, 33672.	1.6	10
29	Modeling competitive precipitations among iron carbides during low-temperature tempering of martensitic carbon steel. Materialia, 2020, 12, 100800.	1.3	10
30	Phase stability limit of c-BN under hydrostatic and non-hydrostatic pressure conditions. Journal of Chemical Physics, 2014, 140, 164704.	1.2	9
31	Electrochemical Potential Derived from Atomic Cluster Structures. Journal of Physical Chemistry Letters, 2016, 7, 567-571.	2.1	9
32	General hierarchical structure to solve transport phenomena with dissimilar time scales: Application in large-scale three-dimensional thermosolutal phase-field problems. Physical Review E, 2020, 102, 043313.	0.8	8
33	Quantitative and qualitative correlations by atomistic determination for the precipitated phases in Alâ€“Liâ€“Cu system. Intermetallics, 2019, 112, 106551.	1.8	7
34	Phase-field lattice-Boltzmann study on eutectic growth with coupled heat and solute diffusion. International Journal of Heat and Mass Transfer, 2019, 145, 118778.	2.5	7
35	Regulating lamellar eutectic trajectory through external perturbations. Physical Review E, 2020, 101, 061301.	0.8	6
36	Evolution of specific interface area during solidification: A three-dimensional thermosolutal phase-field study. Computer Physics Communications, 2021, 267, 108042.	3.0	6

#	Article	IF	Citations
37	Atomistic determination on stability, cluster and microstructures in terms of crystallographic and thermo-kinetic integration of Alâˆ’Mgâˆ’Si alloys. Materials Today Communications, 2020, 24, 101220.	0.9	5
38	Underpinned exploration for magnetic structure, lattice dynamics, electronic properties, and disproportionation of yttrium nickelate. AIP Advances, 2021, 11, .	0.6	5
39	Can twins enhance the elastic stiffness of face-centered-cubic metals?. Computational Materials Science, 2014, 89, 24-29.	1.4	2
40	Multiscale Simulation of Î±-Mg Dendrite Growth via 3D Phase Field Modeling and Ab Initio First Principle Calculations. Minerals, Metals and Materials Series, 2017, , 263-272.	0.3	2
41	â€œOrderâ€•in metallic glass: Maximum uniformity distribution of cluster electrochemical potential. Materials Chemistry and Physics, 2018, 215, 305-309.	2.0	1