Dong-Ke Sun

List of Publications by Year
in descending order

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Version: 2024-02-01

64	1,450	361296	345118
papers	citations	20	36
		h-index	g-index

65	65	65	1205
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Numerical modeling of dendrite growth in a steady magnetic field using the two relaxation times lattice Boltzmann-phase field model. Computational Materials Science, 2022, 204, 111149.	1.4	10
2	Effects of shear flows on columnar dendritic microstructure during rapid solidification of IN718 alloy: A cellular automaton-lattice Boltzmann modeling study. Journal of Crystal Growth, 2022, 585, 126583.	0.7	5
3	Numerical modelling of equiaxed dendritic growth with sedimentation in the melt of binary alloys by using an anisotropic lattice Boltzmann-phase field model. International Journal of Thermal Sciences, 2022, 178, 107592.	2.6	2
4	A Two-Relaxation-Time Lattice Boltzmann Model for Electron Beam Selective Melting Additive Manufacturing. Frontiers in Materials, 2022, 9, .	1.2	3
5	Modeling of crystal growth with density change induced flows by the anisotropic lattice Boltzmann scheme. Applied Mathematics Letters, 2021, 120, 107318.	1.5	6
6	Microporosity formation and dendrite growth during solidification of aluminum alloys: Modeling and experiment. International Journal of Heat and Mass Transfer, 2020, 146, 118838.	2.5	43
7	Numerical study on vaporâ€“liquid phase change in an enclosed narrow space. Numerical Heat Transfer; Part A: Applications, 2020, 77, 199-214.	1.2	2
8	A numerical study on pattern selection in crystal growth by using anisotropic lattice Boltzmann-phase field method*. Chinese Physics B, 2020, 29, 028103.	0.7	7
9	Predictions of solute mixing in a weld pool and macrosegregation formation during dissimilar-filler welding of aluminum alloys: Modeling and experiments. Journal of Materials Research and Technology, 2020, 9, 12080-12090.	2.6	6
10	Developing a versatile electrochemical platform with optimized electrode configuration through screen-printing technology toward glucose detection. Biomedical Microdevices, 2020, 22, 74.	1.4	5
11	Modeling of microporosity formation and hydrogen concentration evolution during solidification of an Alâ€“Si alloy*. Chinese Physics B, 2020, 29, 078104.	0.7	8
12	Modeling of free dendritic growth in a gravity environment by lattice Boltzmann method. European Physical Journal E, 2020, 43, 30.	0.7	4
13	Anisotropic lattice Boltzmann-phase-field modeling of crystal growth with melt convection induced by solid-liquid density change. Journal of Materials Science and Technology, 2020, 57, 26-32.	5.6	15
14	Screen-printed electrochemical biosensor based on a ternary Co@MoS2/rGO functionalized electrode for high-performance non-enzymatic glucose sensing. Biomedical Microdevices, 2020, 22, 17.	1.4	15
15	Numerical modeling of equiaxed crystal growth in solidification of binary alloys using a lattice Boltzmann-finite volume scheme. Computational Materials Science, 2020, 184, 109855.	1.4	10
16	Lattice-Boltzmann Simulations of the Convection-Diffusion Equation with Different Reactive Boundary Conditions. Mathematics, 2020, 8, 13.	1.1	8
17	A discrete kinetic scheme to model anisotropic liquidâ€“solid phase transitions. Applied Mathematics Letters, 2020, 103, 106222.	1.5	14
18	Simultaneous melting and solidification of a columnar dendritic microstructure in a temperature gradient: Numerical modeling and experimentsâ‹†. European Physical Journal E, 2020, 43, 5.	0.7	2

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19	Topical Issue on Branching Dynamics at the Mesoscopic Scale. European Physical Journal E, 2020, 43, 60.	0.7	0
20	Numerical analysis on pulverization and self-densification for hydrogen storage performance of a metal hydride tank. Applied Thermal Engineering, 2019, 161, 114129.	3.0	21
21	A cellular automaton model integrated with CALPHAD-based thermodynamic calculations for ferrite-austenite phase transformations in multicomponent alloys. Computational Materials Science, 2019, 166, 210-220.	1.4	11
22	Numerical and Experimental Study of the Solo Duck Wave Energy Converter. Energies, 2019, 12, 1941.	1.6	5
23	Cobalt functionalized MoS2/carbon nanotubes scaffold for enzyme-free glucose detection with extremely low detection limit. Sensors and Actuators B: Chemical, 2019, 293, 122-128.	4.0	41
24	Interpolation and extrapolation with the CALPHAD method. Journal of Materials Science and Technology, 2019, 35, 2115-2120.	5.6	45
25	Visual detection of mixed organophosphorous pesticide using QD-AChE aerogel based microfluidic arrays sensor. Biosensors and Bioelectronics, 2019, 136, 112-117.	5.3	70
26	Lattice Boltzmann model for time sub-diffusion equation in Caputo sense. Applied Mathematics and Computation, 2019, 358, 80-90.	1.4	11
27	CoCrFeNi Multi-principal Element Alloy Prepared Via Self-propagating High-Temperature Synthesis Plus Investment Casting Method. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 32-35.	1.0	1
28	An anisotropic lattice Boltzmann â€“ Phase field scheme for numerical simulations of dendritic growth with melt convection. International Journal of Heat and Mass Transfer, 2019, 133, 1240-1250.	2.5	48
29	Three-dimensional lattice Boltzmann modeling of droplet condensation on superhydrophobic nanostructured surfaces. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 030501.	0.2	1
30	A comparative study of local and nonlocal Allen-Cahn equations with mass conservation. International Journal of Heat and Mass Transfer, 2018, 122, 631-642.	2.5	77
31	A lattice Boltzmann study on dendritic growth of a binary alloy in the presence of melt convection. International Journal of Heat and Mass Transfer, 2018, 123, 213-226.	2.5	11
32	An Immersed Boundary-Lattice Boltzmann Prediction for Particle Hydrodynamic Focusing in Annular Microchannels. Chinese Physics Letters, 2018, 35, 108101.	1.3	0
33	Visual detection of glucose based on quantum dots aerogel in microfluidic chips. Analytical Methods, 2018, 10, 5749-5754.	1.3	11
34	A lattice Boltzmannâ€“cellular automaton study on dendrite growth with melt convection in solidification of ternary alloys. Chinese Physics B, 2018, 27, 088105.	0.7	6
35	Paper-based graphene oxide biosensor coupled with smartphone for the quantification of glucose in oral fluid. Biomedical Microdevices, 2018, 20, 89.	1.4	33
36	A multicomponent multiphase lattice Boltzmann model with large liquidâ€“gas density ratios for simulations of wetting phenomena. Chinese Physics B, 2017, 26, 084701.	0.7	8

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37	Comprehensive Determination of Kinetic Parameters in Solid-State Phase Transitions: An Extended Jonhsonâ€“Mehlâ€“Avramiâ€“Kolomogorov Model with Analytical Solutions. Crystal Growth and Design, 2016, 16, 2404-2415.	1.4	206
38	Numerical simulation of dendritic growth in directional solidification of binary alloys using a lattice Boltzmann scheme. International Journal of Heat and Mass Transfer, 2016, 103, 821-831.	2.5	29
39	Numerical modeling of condensate droplet on superhydrophobic nanoarrays using the lattice Boltzmann method. Chinese Physics B, 2016, 25, 066401.	0.7	9
40	A three-dimensional quantitative study on the hydrodynamic focusing of particles with the immersed boundary â€“ Lattice Boltzmann method. International Journal of Heat and Mass Transfer, 2016, 94, 306-315.	2.5	30
41	Lattice Boltzmann modeling of bubble formation and dendritic growth in solidification of binary alloys. International Journal of Heat and Mass Transfer, 2016, 94, 474-487.	2.5	54
42	Synthesis and characterization of multifunctional magnetic polyvinyl alcohol (PVA) microspheres for embolization of blood vessel. IEEE Transactions on Biomedical Engineering, 2016, 63, 1-1.	2.5	12
43	Accurate control of individual metallic nanowires by light-induced dielectrophoresis: Size-based separation and array-spacing regulation. Sensors and Actuators A: Physical, 2015, 225, 139-147.	2.0	7
44	Lattice Boltzmann study on thermoacoustic onset in a Rijke tube. European Physical Journal Plus, 2015, 130, 1.	1.2	10
45	Simulation of Dendritic Growth with Melt Convection in Solidification of Ternary Alloys. Chinese Physics Letters, 2015, 32, 068103.	1.3	3
46	Numerical simulation of hydrodynamic focusing of particles in straight channel flows with the immersed boundary-lattice Boltzmann method. International Journal of Heat and Mass Transfer, 2015, 80, 139-149.	2.5	31
47	Inertia-induced focusing dynamics of microparticles throughout a curved microfluidic channel. Microfluidics and Nanofluidics, 2015, 18, 29-39.	1.0	35
48	Modeling of Microstructure Evolution During Alloy Solidification. , 2015, , 183-190.		1
49	Modelling of dendritic growth during alloy solidification under natural convection. Modelling and Simulation in Materials Science and Engineering, 2014, 22, 034006.	0.8	22
50	Directed transport and location-designated rotation of nanowires using ac electric fields. Microfluidics and Nanofluidics, 2014, 16, 237-246.	1.0	3
51	Lattice Boltzmann Modeling of Droplet Condensation on Superhydrophobic Nanoarrays. Langmuir, 2014, 30, 12559-12569.	1.6	54
52	Quantitative characterization of the focusing process and dynamic behavior of differently sized microparticles in a spiral microchannel. Microfluidics and Nanofluidics, 2013, 14, 89-99.	1.0	35
53	An Immersed Boundary-Lattice Boltzmann Simulation of Particle Hydrodynamic Focusing in a Straight Microchannel. Chinese Physics Letters, 2013, 30, 074702.	1.3	16
54	High-throughput inertial particle focusing in a curved microchannel: Insights into the flow-rate regulation mechanism and process model. Biomicrofluidics, 2013, 7, 44116.	1.2	46

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55	Lattice Boltzmann numerical simulation and experimental research of dynamic flow in an expansion-contraction microchannel. Biomicrofluidics, 2013, 7, 34113.	1.2	13
56	Dynamic self-assembly of particles in an expanding channel flow. Applied Physics Letters, 2013, 103, .	1.5	12
57	Multi-relaxation time lattice Boltzmann simulation of inertial secondary flow in a curved microchannel. Chinese Physics B, 2013, 22, 114704.	0.7	16
58	Magnetically Mediated Vortexlike Assembly of Gold Nanoshells. Langmuir, 2012, 28, 6520-6526.	1.6	6
59	Lattice Boltzmann modeling of dendritic growth in forced and natural convection. Computers and Mathematics With Applications, 2011, 61, 3585-3592.	1.4	62
60	Modelling of dendritic growth in ternary alloy solidification with melt convection. International Journal of Cast Metals Research, 2011, 24, 177-183.	0.5	11
61	Numerical Simulation of Microstructure Evolution During Alloy Solidification by Using Cellular Automaton Method. ISIJ International, 2010, 50, 1851-1858.	0.6	18
62	NUMERICAL MODELING OF DENDRITIC GROWTH IN ALLOY SOLIDIFICATION WITH FORCED CONVECTION. International Journal of Modern Physics B, 2009, 23, 1609-1614.	1.0	8
63	Lattice Boltzmann modeling of dendritic growth in a forced melt convection. Acta Materialia, 2009, 57, 1755-1767.	3.8	134
64	Motion of a Neutrally Buoyant Circular Particle in a Lid-Driven Square Cavity: A Numerical Study. Journal of Computational and Theoretical Transport, 0, , 1-16.	0.3	2