

Peter Galenko

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.

177
papers

3,229
citations

33
h-index

48
g-index

204
ext. papers

3,958
ext. citations

2.6
avg, IF

6.04
L-index

#	Paper	IF	Citations
177	Amorphization and nanocrystal formation in a Pd-Ni-Cu-P alloy after cooling under different conditions.. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2022 , 380, 20200321	3	1
176	Structure diagram and dynamics of formation of hexagonal boron nitride in phase-field crystal model.. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2022 , 380, 20200318	3	3
175	Rapid eutectic growth: from rod growth to diffusionless solidification.. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2022 , 380, 20200305	3	3
174	Thermodynamic description of metastable fcc/liquid phase equilibria and solidification kinetics in Al-Cu alloys.. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2022 , 380, 20200327	3	1
173	Selection of a Stable Dendritic Growth Mode under Convective Heat-and-Mass Transfer Conditions. <i>Russian Metallurgy (Metally)</i> , 2022 , 2022, 69-77	0.5	
172	Trapping of Impurity in a Dilute Solution: Phase-Field Simulation of Solidification. <i>Technical Physics</i> , 2021 , 66, 768	0.5	
171	The shape of dendritic tips: a test of theory with computations and experiments. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021 , 379, 20200326	3	5
170	Kinetics of solid-liquid interface motion in molecular dynamics and phase-field models: crystallization of chromium and silicon. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021 , 379, 20200320	3	2
169	Dendritic growth of ice crystals: a test of theory with experiments. <i>Journal of Physics Condensed Matter</i> , 2021 , 33,	1.8	1
168	A review on the theory of stable dendritic growth. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021 , 379, 20200325	3	12
167	The hodograph equation for slow and fast anisotropic interface propagation. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021 , 379, 20200324	3	3
166	Dendrite tips as elliptical paraboloids. <i>Journal of Physics Condensed Matter</i> , 2021 , 33,	1.8	1
165	Demonstration of the effect of stirring on nucleation from experiments on the International Space Station using the ISS-EML facility. <i>Npj Microgravity</i> , 2021 , 7, 31	5.3	3
164	Effects of local nonequilibrium in rapid eutectic solidification Part 2: Analysis of effects and comparison to experiment. <i>Mathematical Methods in the Applied Sciences</i> , 2021 , 44, 12271	2.3	1
163	Towards the Stable Evolution of Dendrites in the Case of Intense Convection in the Melt. <i>Journal of Physics: Conference Series</i> , 2021 , 2114, 012043	0.3	
162	The shape of dendritic tips. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020 , 378, 20190243	3	23
161	Morphological stability diagram for slowly and rapidly solidifying binary systems. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 353-364	2.3	0

160	Theoretical modeling of crystalline symmetry order with dendritic morphology. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 275-286	2.3	8
159	Hodograph-equation for rapid solidification of Si-0.1 at.% As alloy melt. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 439-445	2.3	0
158	Model experiment on a glass-forming Pd-Ni-Cu-P alloy. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 157-165	2.3	2
157	Boundary interface conditions and solute trapping near the transition to diffusionless solidification. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 287-294	2.3	2
156	The role of intense convective flow on dendrites evolving with n-fold symmetry. <i>Journal of Crystal Growth</i> , 2020 , 535, 125540	1.6	7
155	Diffuse interface models of solidification with convection: The choice of a finite interface thickness. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 447-452	2.3	3
154	Effect of tiny amount of impurity and convective transport on dendrite growth kinetics. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 239-251	2.3	0
153	Modeling of dendrite growth from undercooled nickel melt: sharp interface model versus enthalpy method. <i>Journal of Physics Condensed Matter</i> , 2020 , 32, 194002	1.8	7
152	Fast traveling waves in the phase-field theory: effective mobility approach versus kinetic energy approach. <i>Journal of Physics Condensed Matter</i> , 2020 , 32, 204003	1.8	4
151	Traveling waves of the solidification and melting of cubic crystal lattices. <i>Physical Review E</i> , 2020 , 102, 062802	2.4	5
150	Non-axisymmetric growth of dendrite with arbitrary symmetry in two and three dimensions: sharp interface model vs phase-field model. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 2899-2909	2.3	7
149	Selection constants in the theory of stable dendritic growth. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 2891-2897	2.3	3
148	Dendritic crystallization from the undercooled melts: effect of tiny amount of impurity. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 2885-2890	2.3	0
147	On the Theory of Stable Mode of Dendritic Growth in the Presence of Convective Heat and Mass Transfer Boundary Conditions 2020 , 15, 29-34		
146	Bell-shaped dendrite velocity-undercooling relationship with an abrupt drop of solidification kinetics in glass forming Cu-Zr(-Ni) melts. <i>Journal of Crystal Growth</i> , 2020 , 532, 125411	1.6	5
145	Thermo-solutal growth of a dendritic crystal in the form of an elliptical paraboloid with forced convection. <i>Journal of Crystal Growth</i> , 2020 , 531, 125319	1.6	3
144	Solute trapping phenomenon in binary systems and hodograph-equation within effective mobility approach. <i>European Physical Journal: Special Topics</i> , 2020 , 229, 2911-2921	2.3	
143	Effects of local nonequilibrium in rapid eutectic solidification Part 1: Statement of the problem and general solution. <i>Mathematical Methods in the Applied Sciences</i> , 2020 , 44, 12211	2.3	2

142	Analytical solutions to the boundary integral equation: A case of angled dendrites and paraboloids. <i>Mathematical Methods in the Applied Sciences</i> , 2020 , 44, 12058	2.3	1
141	Correlated noise effect on the structure formation in the phase-field crystal model. <i>Mathematical Methods in the Applied Sciences</i> , 2020 , 44, 12185	2.3	1
140	Convective and conductive selection criteria of a stable dendritic growth and their stitching. <i>Mathematical Methods in the Applied Sciences</i> , 2020 , 44, 12139	2.3	2
139	About one unified description of the first- and second-order phase transitions in the phase-field crystal model. <i>Mathematical Methods in the Applied Sciences</i> , 2020 , 44, 12129	2.3	2
138	A Stable Dendritic Growth with Forced Convection: A Test of Theory Using Enthalpy-Based Modeling Methods. <i>Jom</i> , 2020 , 72, 3123-3131	2.1	7
137	Thin interface limit of the double-sided phase-field model with convection. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020 , 378, 20190540	3	5
136	Growth of different faces in a body centered cubic lattice: A case of the phase-field-crystal modeling. <i>Journal of Crystal Growth</i> , 2020 , 539, 125608	1.6	9
135	The Effect of Nonisothermality on the Early Stages of Spinodal Decomposition. <i>Journal of Experimental and Theoretical Physics</i> , 2019 , 129, 86-96	1	1
134	Surface Tension and Viscosity of Cu50Zr50 Measured by the Oscillating Drop Technique on Board the International Space Station. <i>Microgravity Science and Technology</i> , 2019 , 31, 177-184	1.6	20
133	Rapid solidification as non-ergodic phenomenon. <i>Physics Reports</i> , 2019 , 818, 1-70	27.7	36
132	Diffusionless (chemically partitionless) crystallization and subsequent decomposition of supersaturated solid solutions in Sn-Bi eutectic alloy. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019 , 377, 20180204	3	17
131	Thermodynamics of rapid solidification and crystal growth kinetics in glass-forming alloys. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019 , 377, 20180205	3	17
130	A shape of dendritic tips at high Péclet numbers. <i>Journal of Crystal Growth</i> , 2019 , 515, 44-47	1.6	3
129	Selection Criterion of Stable Mode of Dendritic Growth with n-Fold Symmetry at Arbitrary Péclet Numbers with a Forced Convection. <i>IUTAM Symposium on Cellular, Molecular and Tissue Mechanics</i> , 2019 , 203-215	0.3	11
128	Local non-equilibrium effect on the growth kinetics of crystals. <i>Acta Materialia</i> , 2019 , 168, 203-209	8.4	18
127	Kinetics of rapid crystal growth: phase field theory versus atomistic simulations. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 529, 012035	0.4	3
126	Method of evaluation for the non-stationary period of primary dendritic crystallization. <i>Journal of Physics and Chemistry of Solids</i> , 2019 , 134, 176-181	3.9	3
125	Crystal structures predicted by the PFC method with atomic density fluctuations. <i>Materials Today: Proceedings</i> , 2019 , 11, 118-123	1.4	2

124	Dendrite growth in undercooled Al-rich Al-Ni melts measured on Earth and in Space. <i>Physical Review Materials</i> , 2019 , 3,	3.2	3
123	Resistivity Saturation in Metallic Liquids Above a Dynamical Crossover Temperature Observed in Measurements Aboard the International Space Station. <i>Physical Review Letters</i> , 2019 , 123, 226601	7.4	6
122	Phase-field simulation of non-isothermal phase separation in rapidly quenched Co-Cu melts. <i>Computational Materials Science</i> , 2019 , 158, 289-295	3.2	3
121	Dynamic instability of the steady state of a planar front during non-equilibrium solidification of binary alloys. <i>Journal of Crystal Growth</i> , 2019 , 506, 55-60	1.6	4
120	Travelling-wave amplitudes as solutions of the phase-field crystal equation. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	17
119	From atomistic interfaces to dendritic patterns. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	37
118	Kinetic transition in the order-disorder transformation at a solid/liquid interface. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	5
117	Thermo-solutal and kinetic modes of stable dendritic growth with different symmetries of crystalline anisotropy in the presence of convection. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	37
116	The boundary integral theory for slow and rapid curved solid/liquid interfaces propagating into binary systems. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	32
115	Coarse-graining for fast dynamics of order parameters in the phase-field model. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	6
114	Thermo-solutal growth of an anisotropic dendrite with six-fold symmetry. <i>Journal of Physics Condensed Matter</i> , 2018 , 30, 105702	1.8	8
113	Kinetics of the Formation of a Disordered Crystal Structure during High-Speed Solidification. <i>Journal of Experimental and Theoretical Physics</i> , 2018 , 127, 107-114	1	4
112	Phase-Field Crystals 2018 ,		8
111	Boundary conditions and heat resistance at the moving solid-liquid interface. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018 , 489, 149-162	3.3	1
110	Boundary Integral Equation Study of the Growth of a Dendritic Elliptic Paraboloid Crystal. <i>Russian Metallurgy (Metally)</i> , 2018 , 2018, 737-741	0.5	5
109	A relaxation time of secondary dendritic branches to their steady-state growth. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 192, 012002	0.4	
108	Influence of computational domain size on the pattern formation of the phase field crystals. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 192, 012008	0.4	3
107	Dendritic growth with the six-fold symmetry: Theoretical predictions and experimental verification. <i>Journal of Physics and Chemistry of Solids</i> , 2017 , 108, 98-103	3.9	27

106	Traveling wave solutions for the hyperbolic Cahn-Allen equation. <i>Chaos, Solitons and Fractals</i> , 2017 , 94, 75-79	9.3	2
105	Solidification of Undercooled Melts of Al-Based Alloys on Earth and in Space. <i>Jom</i> , 2017 , 69, 1303-1310	2.1	6
104	Modeling of convection, temperature distribution and dendritic growth in glass-fluxed nickel melts. <i>Journal of Crystal Growth</i> , 2017 , 471, 66-72	1.6	23
103	Disorder trapping by rapidly moving phase interface in an undercooled liquid. <i>EPJ Web of Conferences</i> , 2017 , 151, 05001	0.3	
102	Selected mode of dendritic growth with n-fold symmetry in the presence of a forced flow. <i>Europhysics Letters</i> , 2017 , 119, 16001	1.6	17
101	Selected mode for rapidly growing needle-like dendrite controlled by heat and mass transport. <i>Acta Materialia</i> , 2017 , 137, 64-70	8.4	42
100	Effect of convective transport on dendritic crystal growth from pure and alloy melts. <i>Applied Physics Letters</i> , 2017 , 111, 031602	3.4	20
99	Effect of convective flow on stable dendritic growth in rapid solidification of a binary alloy. <i>Journal of Crystal Growth</i> , 2017 , 457, 349-355	1.6	27
98	Boundary integral approach for propagating interfaces in a binary non-isothermal mixture. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2017 , 469, 420-428	3.3	15
97	Simulation of crystalline pattern formation by the MPFC method. <i>MATEC Web of Conferences</i> , 2017 , 129, 02035	0.3	4
96	General set of traveling-wave solutions for amplitude equations in the phase field crystal model. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 192, 012004	0.4	
95	The diagram of phase-field crystal structures: an influence of model parameters in a two-mode approximation. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 192, 012019	0.4	3
94	Solidification kinetics of a Cu-Zr alloy: ground-based and microgravity experiments. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 192, 012028	0.4	4
93	Influence of tiny amounts of impurity on dendritic growth in undercooled melts. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 192, 012030	0.4	5
92	Influence of initial seed distribution on the pattern formation of the phase field crystals 2017 ,		3
91	Analysis of interface kinetics: solutions of the Gibbs-Thomson-type equation and of the kinetic rate theory. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 192, 012014	0.4	13
90	Boundary integral approach for elliptical dendritic paraboloid as a form of growing crystals. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017 , 192, 012025	0.4	2
89	Selection criterion of a stable dendrite growth in rapid solidification. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 101, 789-799	4.9	29

88	Dendritic growth velocities in an undercooled melt of pure nickel under static magnetic fields: A test of theory with convection. <i>Acta Materialia</i> , 2016 , 103, 184-191	8.4	52
87	Gibbs-Thomson condition for the rapidly moving interface in a binary system. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016 , 447, 161-171	3.3	23
86	Three dimensional structures predicted by the modified phase field crystal equation. <i>Computational Materials Science</i> , 2016 , 111, 310-312	3.2	26
85	The effectiveness of parallelizing an algorithm of the PFC equation solution using PetIGA library. <i>Vestnik Udmurtskogo Universiteta: Matematika, Mekhanika, Kompjuternye Nauki</i> , 2016 , 26, 445-450	0.4	2
84	High-rate solidification and melting of concentrated solutions and the Hillert parallel construction. <i>Russian Metallurgy (Metally)</i> , 2016 , 2016, 785-792	0.5	2
83	Atomic density functional and diagram of structures in the phase field crystal model. <i>Journal of Experimental and Theoretical Physics</i> , 2016 , 122, 298-309	1	9
82	The hyperbolic Allen-Cahn equation: exact solutions. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2016 , 49, 435201	2	9
81	Phase-field modeling of an abrupt disappearance of solute drag in rapid solidification. <i>Acta Materialia</i> , 2015 , 90, 282-291	8.4	18
80	On the mesoscopic description of locally nonequilibrium solidification of pure substances. <i>JETP Letters</i> , 2015 , 101, 136-140	1.2	2
79	Traveling wave profiles for a crystalline front invading liquid states: Analytical and numerical solutions. <i>Physica D: Nonlinear Phenomena</i> , 2015 , 308, 1-10	3.3	26
78	Containerless Undercooled Melts: Ordering, Nucleation, and Dendrite Growth. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015 , 46, 4921-4936	2.3	11
77	Solute redistribution around crystal shapes growing under hyperbolic mass transport. <i>International Journal of Heat and Mass Transfer</i> , 2015 , 89, 1054-1060	4.9	8
76	Thermo-solutal and kinetic regimes of an anisotropic dendrite growing under forced convective flow. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 19149-61	3.6	43
75	Kinetics of dendrite growth and dendritic fragmentation in the undercooled Co _{81.2} Cu _{18.8} alloy melt. <i>Metallurgical Research and Technology</i> , 2014 , 111, 295-303	0.9	1
74	The effect of fluid flow on the solidification of Ni ₂ B from the undercooled melt. <i>Journal of Applied Physics</i> , 2014 , 115, 053511	2.5	32
73	Dendrite growth under forced convection: analysis methods and experimental tests. <i>Physics-Uspekhi</i> , 2014 , 57, 771-786	2.8	65
72	A grand potential approach to phase-field modeling of rapid solidification. <i>Journal of Non-Equilibrium Thermodynamics</i> , 2014 , 39,	3.8	11
71	Unconditionally stable method and numerical solution of the hyperbolic phase-field crystal equation. <i>Physical Review E</i> , 2013 , 88, 013310	2.4	45

70	Selection criterion for the growing dendritic tip at the inner core boundary. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2013 , 46, 195101	2	18
69	Coarse graining for the phase-field model of fast phase transitions. <i>Physical Review E</i> , 2013 , 88, 042151	2.4	20
68	Diffuse-interface modeling of solute trapping in rapid solidification: Predictions of the hyperbolic phase-field model and parabolic model with finite interface dissipation. <i>Acta Materialia</i> , 2013 , 61, 4155-4168	8.4	50
67	Synthesis of composite coatings using rapid laser sintering of metallic powder mixtures. <i>Physics of Metals and Metallography</i> , 2013 , 114, 799-820	1.2	12
66	Spinodally decomposed patterns in rapidly quenched CoCu melts. <i>Acta Materialia</i> , 2013 , 61, 1078-1092	8.4	18
65	Selection criterion of stable dendritic growth at arbitrary Péclet numbers with convection. <i>Physical Review E</i> , 2013 , 87, 062403	2.4	57
64	Faceting of a rough solid-liquid interface of a metal induced by forced convection. <i>Philosophical Magazine Letters</i> , 2013 , 93, 608-617	1	18
63	Solute trapping in rapid solidification of a binary dilute system: a phase-field study. <i>Physical Review E</i> , 2011 , 84, 041143	2.4	56
62	Gradient stability of numerical algorithms in local nonequilibrium problems of critical dynamics. <i>Computational Mathematics and Mathematical Physics</i> , 2011 , 51, 1074-1090	0.9	3
61	Marginal stability analysis of the phase field crystal model in one spatial dimension. <i>Physical Review B</i> , 2011 , 83,	3.3	29
60	Unconditionally gradient-stable computational schemes in problems of fast phase transitions. <i>Physical Review E</i> , 2011 , 83, 026705	2.4	26
59	Phase-field modeling of solute trapping: comparative analysis of parabolic and hyperbolic models. <i>International Journal of Materials Research</i> , 2010 , 101, 473-479	0.5	30
58	Selection criterion for the growing dendritic tip in a non-isothermal binary system under forced convective flow. <i>Journal of Crystal Growth</i> , 2010 , 312, 2122-2127	1.6	31
57	Stochastic generalization for a hyperbolic model of spinodal decomposition. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2010 , 389, 3443-3455	3.3	29
56	Phase-field-crystal and Swift-Hohenberg equations with fast dynamics. <i>Physical Review E</i> , 2009 , 79, 051110	1.0	69
55	Evidence of the transition from ordered to disordered growth during rapid solidification of an intermetallic phase. <i>Europhysics Letters</i> , 2009 , 87, 40007	1.6	40
54	Kinetic contribution to the fast spinodal decomposition controlled by diffusion. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2009 , 388, 3113-3123	3.3	34
53	Dendritic solidification in undercooled NiZrAl melts: Experiments and modeling. <i>Acta Materialia</i> , 2009 , 57, 6166-6175	8.4	41

52	Evolution of the structure factor in a hyperbolic model of spinodal decomposition. <i>European Physical Journal: Special Topics</i> , 2009 , 177, 165-175	2.3	28
51	Modeling of a transition to diffusionless dendritic growth in rapid solidification of a binary alloy. <i>Computational Materials Science</i> , 2009 , 45, 972-980	3.2	15
50	Deterministic and Stochastic Dynamics in Spinodal Decomposition of a Binary System. <i>Progress in Physics of Metals</i> , 2009 , 10, 27-102	1.6	2
49	Nonequilibrium solidification in undercooled Ti45Al55 melts. <i>Journal of Applied Physics</i> , 2008 , 103, 073502	2.5	39
48	Non-Equilibrium and Near-Equilibrium Solidification of Undercooled Melts of Ni- and Al-based Alloys. <i>Advanced Engineering Materials</i> , 2008 , 10, 444-452	3.5	10
47	Non-equilibrium effects in spinodal decomposition of a binary system. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2008 , 372, 985-989	2.3	38
46	Modelling of dendritic solidification in undercooled dilute NiZr melts. <i>Acta Materialia</i> , 2007 , 55, 6834-6842	4.2	35
45	Dendritic solidification and fragmentation in undercooled NiZr alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 449-451, 649-653	5.3	21
44	Rapid solidification: in situ diagnostics and theoretical modelling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 449-451, 34-41	5.3	43
43	Experimental test for the hyperbolic model of spinodal decomposition in the binary system. <i>JETP Letters</i> , 2007 , 86, 458-461	1.2	7
42	Supersymmetry model of a binary mixture with noise of the diffusion flux. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007 , 365, 358-363	2.3	
41	Analysis of the dispersion relation in spinodal decomposition of a binary system. <i>Philosophical Magazine Letters</i> , 2007 , 87, 821-827	1	35
40	Change of the kinetics of solidification and microstructure formation induced by convection in the NiAl system. <i>Applied Physics Letters</i> , 2007 , 91, 041913	3.4	50
39	Solute trapping and diffusionless solidification in a binary system. <i>Physical Review E</i> , 2007 , 76, 031606	2.4	87
38	Phase-Field Modeling of Dendritic Solidification in Undercooled Droplets Processed by Electromagnetic Levitation. <i>Materials Science Forum</i> , 2006 , 508, 431-436	0.4	4
37	A Transition to Diffusionless Growth of Crystal Microstructure in Rapid Solidification. <i>Materials Science Forum</i> , 2006 , 508, 19-24	0.4	
36	Diffusionless crystal growth in rapidly solidifying eutectic systems. <i>Physical Review Letters</i> , 2006 , 96, 150602	7.4	44
35	Fluctuations and stochastic noise in systems with hyperbolic mass transport. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2006 , 366, 149-158	3.3	18

34	Dendrite growth velocity in levitated undercooled nickel melts. <i>Journal of Crystal Growth</i> , 2006 , 297, 211-222	1.6	51
33	Diffusionless crystal growth in a eutectic system during rapid solidification. <i>Journal of Experimental and Theoretical Physics</i> , 2006 , 103, 150-158	1	1
32	FRACTALS, MORPHOLOGICAL SPECTRUM AND COMPLEXITY OF INTERFACIAL PATTERNS IN NON-EQUILIBRIUM SOLIDIFICATION 2006 ,		2
31	Diffuse-interface model for rapid phase transformations in nonequilibrium systems. <i>Physical Review E</i> , 2005 , 71, 046125	2.4	127
30	Crystal growth of pure substances: Phase-field simulations in comparison with analytical and experimental results. <i>Journal of Computational Physics</i> , 2005 , 207, 221-239	4.1	56
29	Dendritic growth in AlBi alloys during brazing. Part 1: Experimental evidence and kinetics. <i>International Journal of Heat and Mass Transfer</i> , 2005 , 48, 2372-2384	4.9	22
28	Dendritic growth in AlBi alloys during brazing. Part 2: Computational modeling. <i>International Journal of Heat and Mass Transfer</i> , 2005 , 48, 2385-2396	4.9	16
27	Phase-Field Modeling of Dendritic Solidification: Verification for the Model Predictions with Latest Experimental Data 2005 , 52-60		3
26	Linear morphological stability analysis of the solid-liquid interface in rapid solidification of a binary system. <i>Physical Review E</i> , 2004 , 69, 051608	2.4	53
25	Kinetics of dendritic growth under the influence of convective flow in solidification of undercooled droplets. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 375-377, 488-492	5.3	38
24	Structure and mechanical properties of structural steel in laser resolidification processing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 375-377, 502-506	5.3	13
23	Rapid advancing of the solid-liquid interface in undercooled alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 375-377, 493-497	5.3	23
22	Solidification behaviour of undercooled CoCu alloys showing a metastable miscibility gap. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 375-377, 520-523	5.3	24
21	Interaction of solid ceramic particles with a dendritic solidification front. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 375-377, 524-527	5.3	6
20	Fast crystallization of structural steel during laser processing of the surface. <i>Technical Physics</i> , 2002 , 47, 561-568	0.5	8
19	Extended thermodynamical analysis of a motion of the solid-liquid interface in a rapidly solidifying alloy. <i>Physical Review B</i> , 2002 , 65,	3.3	73
18	Phase-field model with relaxation of the diffusion flux in nonequilibrium solidification of a binary system. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2001 , 287, 190-197	2.3	61
17	Application of the model of locally nonequilibrium solidification to the process of structure formation in alloys rapidly quenched by spinning. <i>Crystallography Reports</i> , 2001 , 46, 310-311	0.6	

16	Selection of the dynamically stable regime of rapid solidification front motion in an isothermal binary alloy. <i>Journal of Crystal Growth</i> , 2000 , 216, 512-526	1.6	33
15	Hyperbolic self-consistent problem of heat transfer in rapid solidification of supercooled liquid. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2000 , 278, 129-138	2.3	18
14	Steady-state shapes of growing crystals in the field of local nonequilibrium diffusion. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2000 , 272, 207-217	2.3	28
13	Quasistationary Forms of Crystal Growth in Locally Nonequilibrium Diffusion of Impurity. <i>Journal of Engineering Physics and Thermophysics</i> , 2000 , 73, 1236-1246	0.6	1
12	Modelling of crystal pattern formation in isothermal undercooled alloys. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2000 , 8, 81-94	2	10
11	Model for isothermal pattern formation of growing crystals in undercooled binary alloys. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2000 , 8, 67-79	2	5
10	Model for free dendritic alloy growth under interfacial and bulk phase nonequilibrium conditions. <i>Journal of Crystal Growth</i> , 1999 , 197, 992-1002	1.6	112
9	Bifurcations in a sidebranch surface of a free-growing dendrite. <i>Physical Review E</i> , 1997 , 55, 611-619	2.4	11
8	Local nonequilibrium effect on undercooling in rapid solidification of alloys. <i>Physical Review E</i> , 1997 , 55, 343-352	2.4	103
7	Local nonequilibrium effect on rapid dendritic growth in a binary alloy melt. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1997 , 235, 271-280	2.3	138
6	Physics of Dendrites 1995 ,		8
5	Local-nonequilibrium phase transition model with relaxation of the diffusion flux. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 1994 , 190, 292-294	2.3	23
4	Structural and phase inhomogeneity of cast corrosion-resistant steels of the austenitic class. <i>Metal Science and Heat Treatment</i> , 1992 , 34, 395-401	0.6	
3	Study on Anomalous Rapid Solidification of Al-35 at%Ni in Microgravity. <i>Jom</i> , 1	2.1	0
2	Dendrite Growth and Grain Refinement in Undercooled Melts 353-372		3
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