Stability of a Planar Interface During Solidification of a

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Citation Report

| # | Article | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Macropores in p-Type Silicon. , 2005, , 15-35. | | 6 |
| 2 | Solute Transport Effects on Macrosegregation and Solidification Structure. , 2004, , 53-74. | | 0 |
| 3 | Dendrites: Understanding of this familiar phenomenon has led to the development of useful man-made materials Science, 1964, 146, 871-879. | 6.0 | 63 |
| 4 | Constitutional supercooling and two-liquid growth of HgTe alloys. British Journal of Applied Physics, 1965, 16, 343-351. | 0.7 | 33 |
| 5 | Temperature Gradients in Semiconductor Alloying Technology. Journal of Applied Physics, 1965, 36, 2652-2656. | 1.1 | 5 |
| 6 | A Stability Function for Explicit Evaluation of the Mullinsâ€5ekerka Interface Stability Criterion. Journal of Applied Physics, 1965, 36, 264-268. | 1.1 | 164 |
| 7 | The Theory of the Stability of the Solid‣iquid Interface under Constitutional Supercooling (I). Physica Status Solidi (B): Basic Research, 1966, 16, 621-632. | 0.7 | 27 |
| 8 | The Theory of the Stability of the Solidâ€Liquid Interface under Constitutional Supercooling (II). Physica Status Solidi (B): Basic Research, 1966, 17, 119-130. | 0.7 | 25 |
| 9 | The Metastable Solid—Liquid Phase Boundary. Journal of Applied Physics, 1966, 37, 3783-3786. | 1.1 | 10 |
| 10 | Current concepts in crystal growth from the melt. Progress in Solid State Chemistry, 1967, 4, 53-80. | 3.9 | 66 |
| 11 | Controlled growth of tin dendrites. Acta Metallurgica, 1967, 15, 231-236. | 2.1 | 17 |
| 12 | Thin alloy zone crystallisation. Journal of Materials Science, 1967, 2, 46-62. | 1.7 | 31 |
| 13 | The Theory of Stability during Temperature Gradient Zone Melting. Physica Status Solidi (B): Basic Research, 1967, 20, 693-704. | 0.7 | 3 |
| 14 | Web-dendrite growth of single crystals of tin. Journal of Crystal Growth, 1967, 1, 73-78. | 0.7 | 8 |
| 15 | Application of the time-dependent theory of interface stability to an isothermal phase transformation. Journal of Physics and Chemistry of Solids, 1967, 28, 983-994. | 1.9 | 73 |
| 16 | Kinetics of isenthalpic solidification using the theory of dendritic growth. Journal of Crystal Growth, 1968, 2, 222-226. | 0.7 | 19 |
| 17 | Theoretical analysis of requirements for crystal growth from solution. Journal of Crystal Growth, 1968, 2, 69-79. | 0.7 | 108 |
| 18 | Some interface growth features of Czochralski sapphire crystals. Journal of Crystal Growth, 1968, 2, 145-148. | 0.7 | 9 |

TATION PEDO

| # | Article | IF | CITATIONS |
|----|--|------|-----------|
| 19 | Morphological stability. Journal of Crystal Growth, 1968, 3-4, 71-81. | 0.7 | 165 |
| 20 | Developments in eutectics. Journal of Crystal Growth, 1968, 3-4, 82-91. | 0.7 | 17 |
| 21 | Phase interface stability in isothermal ternary systems. Journal of Crystal Growth, 1968, 3-4, 549-554. | 0.7 | 13 |
| 22 | Discussion of interface stability of large facets on solution grown crystals. Journal of Crystal Growth, 1968, 3-4, 555-561. | 0.7 | 30 |
| 23 | Theory of stability of a solid-liquid interface during growth from stirred melts. Journal of Crystal Growth, 1968, 3-4, 562-568. | 0.7 | 54 |
| 24 | Morphological stability of lamellar eutectics. Journal of Crystal Growth, 1968, 3-4, 574-582. | 0.7 | 42 |
| 25 | Stability of the solid-liquid interface of semi-transparent materials. Journal of Crystal Growth, 1968, 3-4, 583-593. | 0.7 | 11 |
| 26 | Distribution coefficients during the solidification of an ideal binary system in the presence of heat flow. Journal of Crystal Growth, 1968, 3-4, 627-632. | 0.7 | 15 |
| 27 | Synthesis of Optical Quality Proustite and Pyrargyrite. Nature, 1968, 217, 444-445. | 13.7 | 21 |
| 28 | The stability of a planar interface during the melting of a binary alloy. Philosophical Magazine and Journal, 1968, 17, 283-294. | 1.8 | 24 |
| 29 | Impurity Effects in Ice. Journal of Chemical Physics, 1969, 50, 204-213. | 1.2 | 12 |
| 30 | The microscopy and composition of quenched solid-liquid interfaces. Journal of Crystal Growth, 1969, 5, 155-161. | 0.7 | 56 |
| 31 | Interface stability during the solidification of a stirred binary-alloy melt. Journal of Crystal Growth, 1969, 5, 162-166. | 0.7 | 42 |
| 32 | The development of cells during the solidification of a dilute Pb-Sb alloy. Journal of Crystal Growth, 1969, 5, 361-375. | 0.7 | 151 |
| 33 | The effect of kinetics on the stability of crystal interfaces during growth. Journal of Crystal Growth, 1969, 6, 9-12. | 0.7 | 20 |
| 34 | Effect of Growth Parameters on Substructure Spacing in NaCl Ice Crystals. Journal of Glaciology, 1969, 8, 153-164. | 1.1 | 52 |
| 35 | The influence of a temperature gradient on crystal faceting. Journal of Crystal Growth, 1970, 7, 203-208. | 0.7 | 19 |
| 36 | Cellular growth: The relation between growth velocity and cell size of some alloys of cadmium and zinc. Journal of Crystal Growth, 1970, 7, 348-352. | 0.7 | 28 |

| | | IF | CITATIONS |
|----|--|-----|-----------|
| # | ARTICLE | IF | CHATIONS |
| 37 | 253-260. | 0.7 | 82 |
| 38 | Solute distributions at non-planar, solid-liquid growth fronts. Journal of Crystal Growth, 1970, 6, 334-340. | 0.7 | 32 |
| 39 | Interface Instability in Single Crystals Pulled from the Melt. Journal of Applied Physics, 1970, 41, 2730-2732. | 1.1 | 9 |
| 40 | Crystal Growth Mechanisms: Energetics, Kinetics, and Transport. Solid State Physics, 1970, , 151-299. | 1.3 | 61 |
| 41 | Mechanisms of crystal growth from fluxed melts. Journal of Materials Science, 1971, 6, 1499-1519. | 1.7 | 10 |
| 42 | The Cellular Breakdown of the Planar Interface in Unidirectional Solidification of Al–Cu Alloy. Transactions of the Japan Institute of Metals, 1971, 12, 285-294. | 0.5 | 19 |
| 45 | Growth of duplex crystal. Materials Science and Engineering, 1971, 7, 61-70. | 0.1 | 34 |
| 46 | The suppression of dendritic growth in nickel-base superalloys during unidirectional solidification. Materials Science and Engineering, 1971, 8, 152-160. | 0.1 | 19 |
| 47 | Theory of the stability of a solid-liquid interface during growth from stirred melts. II. Journal of Crystal Growth, 1971, 8, 13-25. | 0.7 | 70 |
| 48 | Solute distributions at non-planar, solid-liquid growth fronts. Journal of Crystal Growth, 1971, 8, 29-32. | 0.7 | 23 |
| 49 | The stability of a planar solid-liquid interface for alloys of indium in tin. Journal of Crystal Growth, 1971, 8, 57-60. | 0.7 | 17 |
| 50 | The temperature distribution in ZnWO4 crystal during growth from the melt. Journal of Crystal Growth, 1971, 10, 39-44. | 0.7 | 9 |
| 51 | Role of interface kinetics on the shape stability of a two-dimensional nucleus on a substrate. Journal of Crystal Growth, 1971, 11, 265-272. | 0.7 | 7 |
| 52 | Stability of a melting interface. Journal of Crystal Growth, 1971, 8, 184-190. | 0.7 | 20 |
| 53 | Interface stability of the melting solid-liquid interface. Journal of Crystal Growth, 1971, 11, 29-38. | 0.7 | 41 |
| 54 | Morphological observations of the eutectic-dendrite breakdown in the Al-CuAl2 system. Journal of Crystal Growth, 1971, 11, 141-146. | 0.7 | 23 |
| 55 | A green's function to describe the time-dependent shape of a morphologically unstable solid-liquid interface during solidification. Journal of Crystal Growth, 1971, 10, 239-250. | 0.7 | 28 |
| 56 | Morphological stability of α-β phase interfaces in the Cuâ^'Znâ^'Ni system at 775°C. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1971, 2, 3467-3477. | 1.0 | 25 |

| | | CITATION R | EPORT | |
|----|--|---------------------------|-------|-----------|
| # | Article | | IF | CITATIONS |
| 57 | Mechanisms of crystal growth from fluxed melts. Journal of Materials Science, 1971, 6 | , 1499-1519. | 1.7 | 42 |
| 58 | Stability of faceted growth forms from melts and in the presence of impurities. Crystal Technology: Journal of Experimental and Industrial Crystallography, 1971, 6, 577-591. | Research and | 0.3 | 10 |
| 59 | Partitioning of HCl in the Waterâ€lce System. Journal of Chemical Physics, 1972, 56, 2 | .853-2857. | 1.2 | 44 |
| 60 | Interface morphology development during stress corrosion cracking: Part I. Via surface Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processir 1972, 3, 1789-1796. | diffusion. ng Science, | 1.0 | 825 |
| 61 | Stability of moving surfaces in fluid systems with heat and mass transport $\hat{a} {\in}"$ I. Chem Science, 1973, 28, 157-165. | ical Engineering | 1.9 | 8 |
| 62 | Stability of moving surfaces in fluid systems with heat and mass transport II. Combined transport and density difference between Phases. AICHE Journal, 1973, 19, 909-915. | d effects of | 1.8 | 35 |
| 63 | Morphological stability near a grain boundary groove in a solid-liquid interface during s of a binary alloy. Journal of Crystal Growth, 1973, 19, 285-293. | olidification | 0.7 | 29 |
| 64 | Dendritic growth of ice crystals. Journal of Crystal Growth, 1973, 20, 268-272. | | 0.7 | 9 |
| 65 | The development of cells during the solidification of dilute Znî—,Sn alloys. Journal of Ci 1973, 18, 257-264. | ystal Growth, | 0.7 | 13 |
| 66 | Reverse Transformation of Low-carbon Low Alloy Steels. Tetsu-To-Hagane/Journal of th Steel Institute of Japan, 1974, 60, 226-238. | e Iron and | 0.1 | 25 |
| 67 | Top seeded solution growth of sodium niobate. Journal of Crystal Growth, 1974, 23, 6 | 5-70. | 0.7 | 20 |
| 68 | A survey of interface stability criteria in the elemental alloy systems: Ge-Si, Bi-Sb, And S Crystal Growth, 1974, 22, 287-294. | Se-Te. Journal of | 0.7 | 36 |
| 69 | The stability of facets on growing crystals. Journal of Crystal Growth, 1974, 26, 59-60. | | 0.7 | 14 |
| 70 | A nonlinear stability analysis of the melting of a dilute binary alloy. Journal of Crystal G 26, 277-293. | rowth, 1974, | 0.7 | 10 |
| 71 | A holographic system for crystal growth studies: Design and applications. Metallograp 453-504. | hy, 1974, 7, | 0.4 | 11 |
| 72 | External field effects on solidification - Macroscopic and microscopic models. , 1974, , | | | 0 |
| 73 | Die Einflüsse der Schmelzenzusammensetzungen, der Temperaturgradienten an der und der Erstarrungsgeschwindigkeit auf die Stabilitäder ebenen Phasengrenze gerich erstarrender Legierungen. Archiv Für Das Eisenhüttenwesen, 1975, 46, 173-179. | Erstarrungsfront Itet | 0.1 | 0 |
| 74 | On the fracture morphology of metallic glasses. Acta Metallurgica, 1975, 23, 615-620. | | 2.1 | 112 |

| # | Article | IF | CITATIONS |
|----|---|-----|-----------|
| 75 | Crucible rotation and crystal growth in the Czochralski geometry. Journal of Crystal Growth, 1975, 30, 352-356. | 0.7 | 10 |
| 76 | Crystal Growth from the Melt. , 1975, , 325-406. | | 7 |
| 77 | Growth of a smecticAfrom a bent nematic phase and the smectic light valve. Journal of Applied Physics, 1975, 46, 584-599. | 1.1 | 92 |
| 78 | Coupled eutectic growth in Al-Fe alloys. Journal of Materials Science, 1976, 11, 1781-1793. | 1.7 | 119 |
| 79 | The proeutectoid reactions in steel. Materials Science and Engineering, 1976, 25, 145-151. | 0.1 | 0 |
| 80 | Interface stability during crystal growth: The effect of stirring. Journal of Crystal Growth, 1976, 32, 1-7. | 0.7 | 62 |
| 81 | The effect of the anisotropy of surface tension and interface kinetics on morphological stability. Journal of Crystal Growth, 1976, 34, 157-163. | 0.7 | 124 |
| 82 | Taille cellulaire de monocristaux de cuivre contenant du silicium. Journal of Crystal Growth, 1976, 35, 201-207. | 0.7 | 4 |
| 83 | Interfacial wave of maximum growth velocity at the morphological instability of the planar solid-liquid interface in the solidification of alloys. Journal of Crystal Growth, 1977, 40, 69-77. | 0.7 | 11 |
| 84 | Stability of a planar solid-liquid interface during unidirectional solidification of A1-0.1wt%Cu alloy. Journal of Crystal Growth, 1977, 40, 78-89. | 0.7 | 34 |
| 85 | Morphological stability of a Plane interface during electroncrystallization from molten salts. Journal of Crystal Growth, 1977, 37, 159-162. | 0.7 | 24 |
| 86 | Capillary shaping in crystal growth from melts. Journal of Crystal Growth, 1977, 37, 272-284. | 0.7 | 54 |
| 87 | Capillary shaping in crystal growth from melts. Journal of Crystal Growth, 1977, 37, 285-288. | 0.7 | 16 |
| 88 | Stability of a spherical particle growing from a stirred melt. Journal of Crystal Growth, 1977, 37, 309-316. | 0.7 | 66 |
| 89 | Stability effects in dendritic crystal growth. Journal of Crystal Growth, 1977, 42, 11-14. | 0.7 | 236 |
| 90 | Experimental studies on meltback morphology of InP. Journal of Crystal Growth, 1977, 42, 315-320. | 0.7 | 12 |
| 91 | Crystal growth considerations in the use of "solar grade―silicon. Journal of Crystal Growth, 1977, 42, 493-498. | 0.7 | 62 |
| 92 | The measurement of liquid diffusion coefficients in the Al-Cu system using temperature gradient zone melting. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1977, 8 1793-1798 | 1.4 | 22 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 93 | Heat and salt transfer associated with formation of sea-ice. Tellus, 1977, 29, 151-160. | 0.4 | 5 |
| 94 | Studies in the theory of interfacial stability—I. Stationary symmetric model. Acta Metallurgica, 1977, 25, 1113-1119. | 2.1 | 138 |
| 95 | Der Einfluß der Abkühlungsgeschwindigkeit auf die Keimauslese bei erschmolzenem Al ₂ O ₃ . Crystal Research and Technology: Journal of Experimental and Industrial Crystallography, 1977, 12, 1139-1147. | 0.3 | 0 |
| 96 | Morphological instability under constitutional supercooling during the crystal growth of InSb from the melt under stabilizing thermal gradient. Journal of Crystal Growth, 1978, 44, 403-413. | 0.7 | 32 |
| 97 | Evidence for a universal law of dendritic growth rates. Journal of Crystal Growth, 1978, 44, 414-418. | 0.7 | 114 |
| 98 | Morphological stabilities of planar solid-liquid interfaces during unidirectional solidification of dilute Al-Ti and Al-Cr alloys. Journal of Crystal Growth, 1978, 44, 419-434. | 0.7 | 38 |
| 99 | Étude en thermodynamique irréversible de la croissance cellulaire d'un monocristal d'alliage binaire dilue. Journal of Crystal Growth, 1978, 44, 235-240. | 0.7 | 6 |
| 100 | Effect of aluminum on the solidification kinetics and morphology of gallium. Journal of Crystal Growth, 1978, 43, 433-445. | 0.7 | 6 |
| 101 | Studies of LPE ripple based on morphological stability theory. Journal of Crystal Growth, 1978, 43, 85-92. | 0.7 | 31 |
| 102 | Morphological stability analysis in chemical vapour deposition processes. I. Journal of Crystal Growth, 1978, 43, 364-370. | 0.7 | 48 |
| 103 | Theory of dendritic growth—I. Elements of a stability analysis. Acta Metallurgica, 1978, 26, 1681-1687. | 2.1 | 669 |
| 104 | Dendrite growth in eutectic alloys: the coupled zone. International Metals Reviews, 1979, 24, 177-204. | 0.3 | 34 |
| 105 | Surface Effects in Elastic Surface Waves. Physica Scripta, 1979, 20, 111-120. | 1.2 | 54 |
| 106 | The influence of impurities on the crystallization of supercooled copper melts. Journal of Crystal Growth, 1979, 46, 112-118. | 0.7 | 6 |
| 107 | Some statistical aspects of the growth of crystals in passivation, metal deposition and anodic film formation. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1979, 103, 165-178. | 0.3 | 8 |
| 108 | Monte-carlo simulation of dendritic growth from the melt. Physica Status Solidi A, 1979, 55, 415-425. | 1.7 | 4 |
| 109 | Some aspects of the macroscopic theory of oriented crystallization from the melt. Acta Physica Academiae Scientiarum Hungaricae, 1979, 47, 133-138. | 0.1 | 4 |
| 110 | Some aspects of the macroscopic theory of oriented crystallization from the melt. Acta Physica Academiae Scientiarum Hungaricae, 1979, 47, 139-149. | 0.1 | 3 |

| # | Article | IF | CITATIONS |
|-----|---|------|-----------|
| 112 | Electron Microscope Characterization of Pulse Annealed Semiconductors. Materials Research Society Symposia Proceedings, 1980, 2, 393. | 0.1 | 0 |
| 113 | Melting and Laser Annealing in Semiconductors using 0.485 μm and 0.193 μm Pulsed Lasers. Materials Research Society Symposia Proceedings, 1980, 2, 409. | 0.1 | 2 |
| 114 | Convection and Constitutional Supercooling Cells in Laser Annealed Silicon. Materials Research Society Symposia Proceedings, 1980, 2, 431. | 0.1 | 0 |
| 115 | Interfacial Stability of Planar Solid-Liquid Interface during Unidirectional Solidification of Al–Zn Alloy. Transactions of the Japan Institute of Metals, 1980, 21, 441-448. | 0.5 | 24 |
| 116 | Morphological stability of a planar interface during unidirectional growth of a dilute binary alloy. Journal of Crystal Growth, 1980, 49, 431-434. | 0.7 | 5 |
| 117 | Theory of dendritic growth during the directional solidification of binary alloys. Journal of Crystal Growth, 1980, 49, 219-232. | 0.7 | 221 |
| 118 | Morphological stability of a solid particle growing from a binary alloy melt. Journal of Crystal Growth, 1980, 48, 93-99. | 0.7 | 55 |
| 119 | Crystallization stability during capillary shaping. Journal of Crystal Growth, 1980, 50, 33-44. | 0.7 | 44 |
| 120 | Theory of powdered crystal formation in electrocrystallization—occurrence of morphological instability at the electrode surface. Electrochimica Acta, 1980, 25, 965-972. | 2.6 | 67 |
| 121 | Influence of solidification on surface tension driven convection. International Journal of Heat and Mass Transfer, 1980, 23, 191-201. | 2.5 | 8 |
| 122 | A theory of branching limited growth of irregular eutectics. Acta Metallurgica, 1980, 28, 777-794. | 2.1 | 184 |
| 123 | Silicon ribbon growth by the dendritic web process. Journal of Crystal Growth, 1980, 50, 221-235. | 0.7 | 55 |
| 124 | Defects in shaped sapphire crystals. Journal of Crystal Growth, 1980, 50, 335-340. | 0.7 | 27 |
| 125 | Instabilities and pattern formation in crystal growth. Reviews of Modern Physics, 1980, 52, 1-28. | 16.4 | 2,401 |
| 126 | The structures expected in a simple ternary eutectic system: Part 1. Theory. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1980, 11, 1243-1249. | 1.4 | 89 |
| 127 | Zone Refining and Its Applications. , 1980, , 301-355. | | 3 |
| 128 | Liquid Phase Epitaxy. , 1980, , 421-461. | | 11 |
| 129 | Dendritic Growth. , 1980, , 485-520. | | 4 |

ARTICLE IF CITATIONS # On the mechanism of dewatering colloidal aqueous solutions by freeze-thaw processes. Water 130 5.3 31 Research, 1980, 14, 1079-1088. A Zener-Hillert model for growth of binary alloy cells. Scripta Metallurgica, 1980, 14, 739-744. 1.2 39 132 Stability principle for WidmanstÄtten plates. Scripta Metallurgica, 1980, 14, 531-534. 1.2 5 Non-equilibrium water/rock interactionsâ€"I. Model for interface-controlled reactions. Geochimica Et 101 Cosmochimica Acta, 1981, 45, 79-92. Interface instability and cell formation in ionâ€implanted and laserâ€annealed silicon. Journal of Applied 134 1.1 84 Physics, 1981, 52, 1289-1293. Macroscopic theory of pulsed-laser annealing. I. Thermal transport and melting. Physical Review B, 1981, 23, 2923-2942. 1.1 Macroscopic theory of pulsed-laser annealing. II. Dopant diffusion and segregation. Physical Review B, 136 1.1 122 1981, 23, 5555-5569. Control of meltâ€front velocity during pulsed laser annealing. Applied Physics Letters, 1981, 38, 422-423. 137 1.5 14 Mechanical Properties of Amorphous Metals and Alloys. Treatise on Materials Science and 138 0.1 10 Technology, 1981, 20, 325-393. ã,¢ãƒ«ãƒŸãƒ<ã,¦ãƒå•金ã®å‡å>º. Keikinzoku/Journal of Japan Institute of Light Metals, 1981, 31, 136-147. 0.1 Nonequilibrium Crystal Growth During Pulsed Laser Annealing. Materials Research Society Symposia 140 0.1 1 Proceedings, 1981, 4, 109. Melting Phenomena and Interfacial Instability Associated with Laser Irradiation. Materials Research 0.1 Society Symposia Proceedings, 1981, 4, 141. Structure/Property Relationships and Applications of Rapidly Solidified Aluminum Alloys. Materials 142 0.1 4 Research Society Symposia Proceedings, 1981, 8, 411. Development of Morphological Instability and Cells During Rapid Solidification of Laser Annealed Silicon Alloys. Materials Research Society Symposia Proceedings, 1981, 8, 553. 143 0.1 Formation and Stability of Extended Solid Solutions Made by Rapid Quenching from the Melt. 144 0.1 0 Materials Research Society Symposia Proceedings, 1981, 8, 71. Morphological Stability of Electron Beam Melted Aluminum Alloys. Materials Research Society 145 0.1 Symposia Proceedings, 1981, 8, 79. Melting phenomenon and properties of defects associated with pulsed laser irradiation $\hat{\epsilon}$. 146 Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical 0.8 16 Properties, 1981, 43, 1515-1535. The effect of crystal size on occlusion formation during crystallization from solution. AICHE 1.8 Journal, 1981, 27, 1029-1031.

| | CHATION | REPORT | |
|-----|--|--------|-----------|
| # | Article | IF | CITATIONS |
| 148 | Dendrite growth at the limit of stability: tip radius and spacing. Acta Metallurgica, 1981, 29, 11-20. | 2.1 | 928 |
| 149 | Overview 12: Fundamentals of dendritic solidification—I. Steady-state tip growth. Acta Metallurgica, 1981, 29, 701-715. | 2.1 | 618 |
| 150 | Interface Breakdown in Heavily Doped Germanium Single Crystals Grown from the Melt. Crystal Research and Technology: Journal of Experimental and Industrial Crystallography, 1981, 16, 853-859. | 0.3 | 1 |
| 151 | The freezing of finite domain aqueous solutions: Solute redistribution. International Journal of Heat and Mass Transfer, 1981, 24, 1443-1455. | 2.5 | 16 |
| 152 | Stable cellular growth of a binary alloy. Journal of Crystal Growth, 1981, 51, 81-84. | 0.7 | 6 |
| 153 | Cell size of dilute binary alloys. Journal of Crystal Growth, 1981, 51, 106-112. | 0.7 | 11 |
| 154 | In-situ electron microscopy of some solidification processes in metallic alloys. Journal of Crystal Growth, 1981, 52, 67-75. | 0.7 | 20 |
| 155 | Some recent developments in electrochemical nucleation-growth-collision theory. Journal of Electroanalytical Chemistry and Interfacial Electrochemistry, 1981, 118, 419-432. | 0.3 | 53 |
| 156 | Convective effects in crystals grown from melt. Journal of Crystal Growth, 1981, 55, 614-646. | 0.7 | 176 |
| 157 | Growth and dissolution of ternary alloys of III–V compounds by liquid phase epitaxy and the formation of heterostructures. Journal of Crystal Growth, 1981, 52, 699-709. | 0.7 | 26 |
| 158 | A theory of osmotic instabilities of a moving semipermeable membrane: Preliminary model for the initial stages of silicate garden formation and of portland cement hydration. Journal of Colloid and Interface Science, 1981, 79, 192-208. | 5.0 | 13 |
| 159 | Shape instabilities and pattern formation in solidification: A new method for numerical solution of the moving boundary problem. Journal of Computational Physics, 1981, 39, 112-127. | 1.9 | 37 |
| 160 | Growth interface breakdown during laser recrystallization from the melt. Applied Physics Letters, 1981, 38, 642-644. | 1.5 | 69 |
| 161 | Morphological stability of the planar solidâ€ŀiquid interface. Journal of Applied Physics, 1981, 52, 2971-2982. | 1.1 | 27 |
| 162 | Metastable honeycomb model of laser annealing. Journal of Applied Physics, 1981, 52, 7397-7402. | 1.1 | 6 |
| 163 | Unstable modes of a quenched fluid interface. Physical Review A, 1981, 23, 3192-3199. | 1.0 | 18 |
| 164 | Melting phenomena and pulsedâ€laser annealing in semiconductors. Journal of Applied Physics, 1981, 52, 7121-7128. | 1.1 | 34 |
| 165 | Al diffusivity as a function of growth rate during the formation of (GaAl)As heterojunctions by liquid phase epitaxy. Journal of Applied Physics, 1981, 52, 814-817. | 1.1 | 14 |

| | | 15 | 0 |
|-----|--|-----|-----------|
| # | ARTICLE | IF | CITATIONS |
| 166 | Proceedings, 1981, 8, 15. | 0.1 | 6 |
| 167 | Thermodynamic Stability of the Solidification Front during Unidirectional Growth from the Melt. Journal of Non-Equilibrium Thermodynamics, 1982, 7, . | 2.4 | 6 |
| 168 | Growth of eutectic thin film structures. Journal of Applied Physics, 1982, 53, 5898-5903. | 1.1 | 2 |
| 169 | Cell formation and interfacial instability in laserâ€annealed Siâ€In and Siâ€Sb alloys. Journal of Applied Physics, 1982, 53, 912-915. | 1.1 | 24 |
| 170 | Enhancement of interface stability in liquid phase electroepitaxy. Journal of Applied Physics, 1982, 53, 1706-1713. | 1.1 | 42 |
| 171 | Crystallization Processes. , 1982, , 15-42. | | 62 |
| 172 | Modelling mushy regions. , 1982, , 109-126. | | 1 |
| 173 | Dopant Incorporation During Rapid Solidification. Materials Research Society Symposia Proceedings, 1982, 13, 287. | 0.1 | 5 |
| 174 | Segregation and Crystallization Phenomena in Germanium. Materials Research Society Symposia Proceedings, 1982, 13, 303. | 0.1 | 3 |
| 175 | Processing/Microstructure Relationships in Surface Melting. Materials Research Society Symposia Proceedings, 1982, 13, 733. | 0.1 | 3 |
| 176 | Role of interfaces in kinetics of internal shape changes. Metal Science, 1982, 16, 1-14. | 0.7 | 145 |
| 177 | Rapid solidification. International Metals Reviews, 1982, 27, 185-208. | 0.3 | 117 |
| 178 | Deoxidation Characteristics and Shape Modification of Deoxidation Products with Al-Ce and Al-Y Complex Deoxidizers. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1982, 68, 1915-1921. | 0.1 | 13 |
| 179 | Macroscopic theory of pulsed-laser annealing. III. Nonequilibrium segregation effects. Physical Review B, 1982, 25, 2786-2811. | 1.1 | 84 |
| 180 | Microstructures of rapidly solidified aluminum alloy submicron powders. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1982, 13, 13-23. | 1.4 | 99 |
| 181 | Heat Flow during Rapid Solidification of Undercooled Metal Droplets. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1982, 13, 221-234. | 1.4 | 246 |
| 182 | An analysis of the heat and solute transport during solidification of an aqueous binary solution—I. basal plane region. International Journal of Heat and Mass Transfer, 1982, 25, 553-561. | 2.5 | 27 |
| 183 | An analysis of the heat and solute transport during solidification of an aqueous binary solution—II. Dendrite tip region. International Journal of Heat and Mass Transfer, 1982, 25, 563-573. | 2.5 | 12 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 184 | Developments in crystal growth from high-temperature solutions. Progress in Crystal Growth and Characterization, 1982, 5, 277-290. | 0.8 | 11 |
| 185 | Interfacial stability during the growth of a dilute binary alloy - thermodynamical approach. Journal of Crystal Growth, 1982, 60, 381-388. | 0.7 | 1 |
| 186 | Effect of solutal convection on the morphological stability of a binary alloy. Journal of Crystal Growth, 1982, 58, 163-179. | 0.7 | 102 |
| 187 | Development of morphological instability and formation of cells in silicon alloys during pulsed laser irradiation. Journal of Crystal Growth, 1982, 59, 583-598. | 0.7 | 37 |
| 188 | Solute polarization during planar freezing of aqueous salt solutions. International Journal of Heat and Mass Transfer, 1983, 26, 1241-1253. | 2.5 | 69 |
| 189 | Analysis of morphologically stable horizontal ribbon crystal growth. Journal of Electronic Materials, 1983, 12, 161-179. | 1.0 | 14 |
| 190 | The effect of soret diffusion on the morphological stability of a binary alloy crystal. Journal of Crystal Growth, 1983, 61, 463-472. | 0.7 | 20 |
| 191 | Segregation during directional melting and its implications on seeded crystal growth: A theoretical analysis. Journal of Crystal Growth, 1983, 61, 681-688. | 0.7 | 3 |
| 192 | An approach to pattern formation in crystal growth. Journal of Crystal Growth, 1983, 63, 400-406. | 0.7 | 4 |
| 193 | Unidirectional growth of dilute Bi-Sb alloys. Journal of Crystal Growth, 1983, 62, 539-544. | 0.7 | 14 |
| 194 | Non-equilibrium dopants incorporation in silicon melted by laser pulses. Applied Physics A: Solids and Surfaces, 1983, 30, 195-211. | 1.4 | 28 |
| 195 | The growth of γ′ precipitates in nickel-base superalloys. Acta Metallurgica, 1983, 31, 43-53. | 2.1 | 308 |
| 197 | Defect structure transitions in silicon induced by Q-switched laser annealing. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1983, 116, 527-536. | 0.9 | 1 |
| 198 | On cellular instability in the solidification of a dilute binary alloy. Physica D: Nonlinear Phenomena, 1983, 8, 243-248. | 1.3 | 91 |
| 199 | Convective transport in melt growth systems. Journal of Crystal Growth, 1983, 65, 124-132. | 0.7 | 66 |
| 200 | Oscillatory morphological instabilities due to non-equilibrium segregation. Journal of Crystal Growth, 1983, 61, 499-508. | 0.7 | 170 |
| 201 | Mathematical modeling and parametric study of heat transfer in Bridgman-Stockbarger growth of crystals. Journal of Crystal Growth, 1983, 62, 425-432. | 0.7 | 6 |
| 202 | Solidification processes in saline solutions. Journal of Crystal Growth, 1983, 62, 513-522. | 0.7 | 31 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 203 | Interfacial stability of migrating brine inclusions in alkali halide single crystals supporting a temperature gradient. Journal of Crystal Growth, 1983, 62, 612-626. | 0.7 | 7 |
| 204 | Dynamics of Interfacial Pattern Formation. Physical Review Letters, 1983, 51, 1930-1932. | 2.9 | 189 |
| 205 | Solidification morphology of picosecond pulsed laser quenched Fe96B4. Scripta Metallurgica, 1983, 17, 1259-1262. | 1.2 | 8 |
| 206 | Geometrical Approach to Moving-Interface Dynamics. Physical Review Letters, 1983, 51, 1111-1114. | 2.9 | 191 |
| 207 | Amorphization of germanium, gallium phosphide, and gallium arsenide by laser quenching from the melt. Applied Physics Letters, 1983, 42, 875-877. | 1.5 | 14 |
| 208 | The liquidâ \in 'solid transformation in alloys close to the eutectic composition. , 1983, , 1-54. | | 0 |
| 209 | Cellular patterns produced by the directional solidification of a binary-alloy. Physical Review B, 1983, 27, 7073-7092. | 1.1 | 44 |
| 210 | Pattern selection in directional solidification. Physical Review B, 1983, 28, 247-254. | 1.1 | 21 |
| 211 | Pattern formation in directional solidification. Physical Review B, 1983, 27, 6796-6810. | 1.1 | 30 |
| 212 | Mode selection in a dendritelike nonlinear system. Physical Review A, 1983, 27, 499-514. | 1.0 | 64 |
| 213 | Cluster-growth processes on a two-dimensional lattice. Physical Review B, 1983, 28, 6718-6732. | 1.1 | 55 |
| 214 | Pattern emergence and selection in crystal growth. Physical Review B, 1983, 27, 3909-3912. | 1.1 | 37 |
| 215 | Hydrodynamic stability of the melt during solidification of a binary alloy. Physics of Fluids, 1983, 26, 624. | 1.4 | 72 |
| 216 | A Kinetic and Thermal Study of the Superalloy Melt Spinning Process. Materials Research Society Symposia Proceedings, 1983, 28, 125. | 0.1 | 2 |
| 217 | Some Fundamental Considerations During Rapid Solidification Processing. Materials Research Society Symposia Proceedings, 1983, 28, 21. | 0.1 | 3 |
| 218 | å‡å›ºçµæ™¶ã®æ,生æ^ãïæ^é•. Bulletin of the Japan Institute of Metals, 1983, 22, 745-754. | 0.1 | 1 |
| 219 | Cellular interface morphologies in directional solidification. II. The effect of grain boundaries. Physical Review B, 1984, 30, 3993-3999. | 1.1 | 61 |
| 220 | Geometrical models of interface evolution. II. Numerical simulation. Physical Review A, 1984, 30, 3161-3174. | 1.0 | 129 |

| | | CITATION REP | PORT | |
|-----|--|-------------------|------|-----------|
| # | Article | | IF | CITATIONS |
| 221 | Boundary-layer model of pattern formation in solidification. Physical Review A, 1984, 29, 33 | 0-340. | 1.0 | 170 |
| 222 | Cellular interface morphologies in directional solidification. The one-sided model. Physical Re 1984, 29, 1367-1380. | eview B, | 1.1 | 132 |
| 223 | LPE Growth and Surface Morphology of InxGa1-xAsyP1-y(yâ‰ 9 .01) on (100) GaAs. Japanes Applied Physics, 1984, 23, 68-73. | e Journal of | 0.8 | 16 |
| 224 | A simple model for unidirectional crystal growth. Physics Letters, Section A: General, Atomic Solid State Physics, 1984, 105, 241-244. | and | 0.9 | 8 |
| 225 | The formation of fractal objects. Physics Reports, 1984, 103, 173-176. | | 10.3 | 1 |
| 226 | Morphological and hydrodynamic instabilities during phase transformations. Physica D: Non Phenomena, 1984, 12, 212-214. | linear | 1.3 | 5 |
| 227 | Simple models of interface growth. Physica D: Nonlinear Phenomena, 1984, 12, 241-244. | | 1.3 | 3 |
| 228 | String models of interfacial pattern formation. Physica D: Nonlinear Phenomena, 1984, 12, 2 | 245-252. | 1.3 | 5 |
| 229 | Nonplanar interface morphologies during unidirectional solidification of a binary alloy. Physi Nonlinear Phenomena, 1984, 12, 253-261. | ca D: | 1.3 | 24 |
| 230 | Surface undulations in explosive crystallization: A nonlinear analysis of a thermal instability. D: Nonlinear Phenomena, 1984, 12, 279-294. | Physica | 1.3 | 30 |
| 231 | Effect of a forced Couette flow on coupled convective and morphological instabilities during unidirectional solidification. Journal of Crystal Growth, 1984, 69, 15-22. | ý 2 | 0.7 | 72 |
| 232 | A numerical study using "front tracking―finite elements on the morphological stability interface during transient solidification processes. Journal of Crystal Growth, 1984, 69, 29-4 | of a planar 6. | 0.7 | 12 |
| 233 | Growth rate of crystals of pure metals nucleated from the undercooled melt. Journal of Crys Growth, 1984, 67, 85-90. | tal | 0.7 | 12 |
| 234 | Non-equilibrium thermodynamics of the solidification problem. Journal of Crystal Growth, 19 575-585. | 84, 66, | 0.7 | 32 |
| 235 | Model for the evaluation of the shape parameters of a cellular solidification front. Journal of Crystal Growth, 1984, 66, 596-606. | | 0.7 | 10 |
| 236 | A "front tracking―finite element study on change of phase interface stability during so processes in solutions. Journal of Crystal Growth, 1984, 70, 56-63. | lidification | 0.7 | 13 |
| 237 | Rhythmic crystallization of ascorbic acid precipitated from its methanol solutions. Journal of Colloid and Interface Science, 1984, 102, 477-482. | · | 5.0 | 17 |
| 238 | Mechanisms of microsegregation-free solidification. Materials Science and Engineering, 198 | 4, 65, 27-36. | 0.1 | 133 |

| | | EPORT | |
|-----|--|-------|-----------|
| # | Article | IF | CITATIONS |
| 239 | Dynamics of dendritic pattern formation. Materials Science and Engineering, 1984, 65, 37-44. | 0.1 | 26 |
| 240 | Microsegregation. Materials Science and Engineering, 1984, 65, 101-109. | 0.1 | 64 |
| 241 | Microstructure of rapidly solidified materials. Materials Science and Engineering, 1984, 65, 145-156. | 0.1 | 87 |
| 242 | The Effect of Rapid Solidification Velocity on the Microstructure of Ag-Cu Alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1984, 15, 55-66. | 1.4 | 229 |
| 243 | Pattern Selection in Solidification. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1984, 15, 961-966. | 1.1 | 17 |
| 244 | Interdendritic Spacing: Part II. A Comparison of Theory and Experiment. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1984, 15, 977-982. | 1.1 | 397 |
| 245 | A Numerical Finite Difference Model of Steady State Cellular and Dendritic Growth. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1984, 15, 983-994. | 1.1 | 37 |
| 246 | Precipitation in rapidly solidified Al-Mn alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1984, 15, 1987-1997. | 1.4 | 73 |
| 247 | Convection-induced distortion of a solid-liquid interface. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1984, 15, 2109-2115. | 1.4 | 54 |
| 248 | Morphological stability in the presence of fluid flow in the melt. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1984, 15, 2117-2124. | 1.4 | 25 |
| 249 | Metallic Phase with Long-Range Orientational Order and No Translational Symmetry. Physical Review Letters, 1984, 53, 1951-1953. | 2.9 | 6,314 |
| 250 | Theory of cellular solidification of binary alloys with applications to succinonitrile-salol. Acta Metallurgica, 1984, 32, 893-906. | 2.1 | 50 |
| 251 | Instabilities in continuum equations for aggregation by diffusion. Physica A: Statistical Mechanics and Its Applications, 1984, 123, 360-368. | 1.2 | 9 |
| 252 | On the stability of hexagonal interfacial patterns in directional solidification of binary mixtures. Journal of Crystal Growth, 1984, 68, 677-690. | 0.7 | 29 |
| 253 | Undirectional solidification of Ni-Al-Mo Alloy. Journal of Crystal Growth, 1984, 66, 426-430. | 0.7 | 5 |
| 254 | Columnar dendrite growth: A comparison of theory. Journal of Crystal Growth, 1984, 69, 362-366. | 0.7 | 21 |
| 255 | Microstructure of stir-cast metals. Materials Science and Engineering, 1984, 65, 181-189. | 0.1 | 187 |
| 256 | The status of rapid solidification of alloys in research and application. Journal of Materials Science, 1984, 19, 1043-1076. | 1.7 | 144 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 257 | Modification in tin-antimony alloys. Journal of Materials Science, 1984, 19, 3880-3886. | 1.7 | 14 |
| 258 | Singularities in nonlocal interface dynamics. Physical Review A, 1984, 30, 2840-2842. | 1.0 | 172 |
| 259 | Geometrical models of interface evolution. Physical Review A, 1984, 29, 1335-1342. | 1.0 | 238 |
| 260 | Rapid solidification by application of high pressure. Scripta Metallurgica, 1984, 18, 1327-1330. | 1.2 | 17 |
| 261 | On the stability criterion for cellular growth in alloys. Scripta Metallurgica, 1984, 18, 1085-1089. | 1.2 | 2 |
| 262 | Pattern selection in single-component systems coupling Bénard convection and solidification. Journal of Fluid Mechanics, 1984, 144, 133-151. | 1.4 | 99 |
| 263 | Topics in surface structure and crystal growth. Surface Science, 1984, 148, 212-224. | 0.8 | 3 |
| 264 | Pattern Formation in Diffusion-Limited Aggregation. Physical Review Letters, 1984, 53, 2281-2284. | 2.9 | 259 |
| 265 | Chapter 4 Melting Model of Pulsed Laser Processing. Semiconductors and Semimetals, 1984, 23, 165-250. | 0.4 | 15 |
| 266 | Chapter 5 Nonequilibrium Solidification Following Pulsed Laser Melting. Semiconductors and Semimetals, 1984, , 251-312. | 0.4 | 2 |
| 267 | Chapter 1 Laser Processing of Semiconductors: An Overview. Semiconductors and Semimetals, 1984, 23, 1-41. | 0.4 | 10 |
| 268 | Chapter 2 Segregation, Solute Trapping, and Supersaturated Alloys. Semiconductors and Semimetals, 1984, , 43-94. | 0.4 | Ο |
| 269 | Ordering induced by chemical, thermal and mechanical constraints at solid interfaces. Pure and Applied Chemistry, 1984, 56, 1727-1738. | 0.9 | 1 |
| 270 | Dopant Incorporation in Silicon During Nonequilibrium Solidification: Comparison of Two Processes. Materials Research Society Symposia Proceedings, 1984, 35, 419. | 0.1 | 1 |
| 271 | Transition from A Planar Interface to Cellular and Dendritic Structures During Rapid Solidification Processing. Materials Research Society Symposia Proceedings, 1985, 58, 41. | 0.1 | 1 |
| 272 | Oscillatory Morphological Instabilities During Rapid Solidification A The Role of Diffusion In The Solid. Materials Research Society Symposia Proceedings, 1985, 51, 191. | 0.1 | 0 |
| 273 | Chapter 1 Principles underlying coatings and surface modification science. Materials Science and Engineering, 1985, 70, 9-22. | 0.1 | 7 |
| 274 | Instability in radiatively melted silicon films. Journal of Crystal Growth, 1985, 71, 385-390. | 0.7 | 55 |

| | | CITATION REPORT | |
|-----|--|-----------------|-----------|
| # | Article | IF | CITATIONS |
| 275 | Interaction of particles and a moving ice-liquid interface. Journal of Crystal Growth, 1985, 72, 649 |)-662. 0.7 | 182 |
| 276 | Nature of the transition of the solidification front of a binary mixture from a planar to a cellular morphology. Journal of Crystal Growth, 1985, 73, 242-244. | 0.7 | 48 |
| 277 | Theory of dendritic growth under rapid solidification conditions. Journal of Crystal Growth, 1985, 73, 289-303. | 0.7 | 26 |
| 278 | Microsegregation in cellular dendritic growth in binary alloys of Al-Cu. Journal of Crystal Growth, 1985, 73, 369-378. | 0.7 | 14 |
| 279 | Microstructure of rapidly solidified laser molten Al-4.5 Wt Pct cu surfaces. Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science, 1985, 16, 149-10 | 51. 0.5 | 63 |
| 280 | Rapid solidification characteristics in melt spinning a Ni-base superalloy. Metallurgical and Materi Transactions A - Physical Metallurgy and Materials Science, 1985, 16, 1773-1779. | als 1.4 | 36 |
| 281 | Entropy criteria applied to pattern selection in systems with free boundaries. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1985, 16, 1781-1797. | 1.4 | 26 |
| 282 | Cellular and dendritic growth: Part II. Theory. Metallurgical and Materials Transactions A - Physica Metallurgy and Materials Science, 1985, 16, 1807-1814. | 1.4 | 13 |
| 283 | Dendritic solidification—II. A model for dendritic growth under an imposed thermal gradient. Ac Metallurgica, 1985, 33, 1037-1049. | ta 2.1 | 41 |
| 284 | Pattern formation during the directional solidification of binary systems. Acta Metallurgica, 1985 1061-1068. | , 33, 2.1 | 145 |
| 285 | On similarities between the theories of morphological instability of a growing binary alloy crystal and Rayleigh-Bénard convective instability. Journal of Crystal Growth, 1985, 72, 738-742. | 0.7 | 9 |
| 286 | Rapid solidification and crystallization of a Zr-24at.%Fe alloy. Materials Science and Engineering, 73, 187-195. | 1985, 0.1 | 13 |
| 287 | Unidirectional freezing of binary aqueous solutions: an analysis of transient diffusion of heat and mass. International Journal of Heat and Mass Transfer, 1985, 28, 761-769. | 2.5 | 42 |
| 288 | On morphological stability of planar phase boundaries during unidirectional transient solidificatic of binary aqueous solutions. International Journal of Heat and Mass Transfer, 1985, 28, 897-902. | n 2.5 | 21 |
| 289 | Dendritic solidification—III. Some further refinements to the model for dendritic growth under a imposed thermal gradient. Acta Metallurgica, 1985, 33, 1475-1480. | in 2.1 | 10 |
| 290 | Dendritic solidification—I. Analysis of current theories and models. Acta Metallurgica, 1985, 33, 1023-1035. | 2.1 | 78 |
| 291 | Interfacial stability and grain diameter of the metal phase of directionally solidified Al-Si-type eutectics. Crystal Research and Technology, 1985, 20, 1245-1251. | 0.6 | 0 |
| 292 | Transient annealing of semiconductors by laser, electron beam and radiant heating techniques. Reports on Progress in Physics, 1985, 48, 1155-1233. | 8.1 | 74 |

| # | Article | IF | CITATIONS |
|-----|---|------|-----------|
| 293 | Boundary-Layer Formulation of Dendritic Growth: Existence of a Family of Steady-State Needle Solutions. Physical Review Letters, 1985, 55, 1685-1688. | 2.9 | 19 |
| 294 | New Experimental Findings in Two-Dimensional Dendritic Crystal Growth. Physical Review Letters, 1985, 55, 841-844. | 2.9 | 93 |
| 295 | Cellular interface morphologies in directional solidification. III. The effects of heat transfer and solid diffusivity. Physical Review B, 1985, 31, 5923-5930. | 1.1 | 61 |
| 296 | UV laser incorporation of dopants into silicon: Comparison of two processes. Journal of Applied Physics, 1985, 58, 2167-2173. | 1.1 | 26 |
| 297 | Theory for the anomalous light scattering in growing ice crystals. Physical Review A, 1985, 32, 2944-2962. | 1.0 | 15 |
| 298 | Formation of solidification patterns in aggregation models. Physical Review A, 1985, 32, 3084-3089. | 1.0 | 79 |
| 299 | Unidirectional Crystal Growth and Crystal Anisotropy. Physica Scripta, 1985, T9, 126-129. | 1.2 | 52 |
| 300 | Cellular Growth During Directional Solidification. Annual Review of Materials Research, 1985, 15, 119-145. | 5.5 | 112 |
| 301 | Velocity dependence of maximum substitutional concentrations of In and Bi trapped in rapidly solidified Si. Applied Physics Letters, 1985, 47, 485-487. | 1.5 | 11 |
| 302 | A Numerical Simulation of a Binary Alloy Solidification Process. SIAM Journal on Scientific and Statistical Computing, 1985, 6, 911-922. | 1.5 | 9 |
| 303 | Cobaltous Oxide in an Oxygen Potential Gradient: Morphological Stability of the Phase Boundaries. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1985, 89, 124-130. | 0.9 | 50 |
| 304 | The Formation of Freckles in Binary Alloys. IMA Journal of Applied Mathematics, 1985, 35, 159-174. | 0.8 | 191 |
| 305 | Morphological stability in epitaxy of semiconductors ? application to optoelectronic monolithically integrated structures. Applied Physics A: Solids and Surfaces, 1986, 41, 243-252. | 1.4 | 6 |
| 306 | Cellular instabilities in directional solidification. Journal De Physique, 1986, 47, 2095-2103. | 1.8 | 107 |
| 307 | Interaction of Flows with the Crystal-Melt Interface. Annual Review of Fluid Mechanics, 1986, 18, 307-335. | 10.8 | 206 |
| 308 | Impact of Clarence Zener upon metallurgy. Journal of Applied Physics, 1986, 60, 1868-1876. | 1.1 | 14 |
| 309 | Dendritic and Fractal Patterns in Electrolytic Metal Deposits. Physical Review Letters, 1986, 56, 1260-1263. | 2.9 | 541 |
| 310 | Solidification of an alloy from a cooled boundary. Journal of Fluid Mechanics, 1986, 167, 481. | 1.4 | 282 |

| # | Article | IF | Citations |
|-----|--|-----|-----------|
| 311 | Dendrite growth Bulletin of the Japan Institute of Metals, 1986, 25, 727-731. | 0.1 | 0 |
| 312 | Solidification of aluminum alloys. Morphological instability of planar solid-liquid interface Keikinzoku/Journal of Japan Institute of Light Metals, 1986, 36, 305-313. | 0.1 | 0 |
| 313 | Dendritic Growth During Phase Transformation in Ni-Mo System Induced by Ion Beam. Materials Research Society Symposia Proceedings, 1986, 74, 511. | 0.1 | 0 |
| 314 | Overview of Rapid Solidification Technology. Canadian Metallurgical Quarterly, 1986, 25, 59-72. | 0.4 | 25 |
| 315 | Morphological stability of a planar interface under rapid solidification conditions. Acta Metallurgica, 1986, 34, 1663-1670. | 2.1 | 233 |
| 316 | Stability of anisotropic liquid-solid interfaces. Acta Metallurgica, 1986, 34, 1029-1034. | 2.1 | 6 |
| 317 | The Problem of a Near Surface Quasi-Gas Transition Layer in MBE. Crystal Research and Technology, 1986, 21, 1413-1420. | 0.6 | 12 |
| 318 | Growth instability in diffusion controlled polymerization. Solid State Communications, 1986, 60, 757-761. | 0.9 | 17 |
| 319 | Origin of diffusional light scattering at the non-equilibrium crystal-melt interface. Solid State Communications, 1986, 60, 857-860. | 0.9 | 26 |
| 320 | On the solidification front of a dilute binary alloy: Thermal diffusivity effects and breathing solutions. Physica D: Nonlinear Phenomena, 1986, 20, 237-258. | 1.3 | 30 |
| 321 | Asymptotic equations in directional solidification. Physica D: Nonlinear Phenomena, 1986, 23, 118-121. | 1.3 | 2 |
| 322 | The Mullins-Sekerka instability in directional solidification of thin samples. Journal of Crystal Growth, 1986, 76, 31-49. | 0.7 | 40 |
| 323 | Pattern generation at the solidification front as examined from traces in the solid: Forbidden cells. Journal of Crystal Growth, 1986, 78, 69-84. | 0.7 | 2 |
| 324 | On the two-phase Stefan problem with interfacial energy and entropy. Archive for Rational Mechanics and Analysis, 1986, 96, 199-241. | 1.1 | 81 |
| 325 | An analysis of a phase field model of a free boundary. Archive for Rational Mechanics and Analysis, 1986, 92, 205-245. | 1.1 | 663 |
| 326 | Dendritic crystal growth in pure4He. Journal of Low Temperature Physics, 1986, 64, 165-186. | 0.6 | 23 |
| 327 | On the formation of the stircast structure. Journal of Materials Science, 1986, 21, 389-394. | 1.7 | 50 |
| 328 | Twodimensional stochastic theory of crystal growth. European Physical Journal D, 1986, 36, 863-867. | 0.4 | 5 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 329 | Transactions A - Physical Metallurgy and Materials Science, 1986, 17, 73-91. | 1.4 | 19 |
| 330 | Dendrite characteristics in directionally solidified Pb-8 Pct Au and Pb-3 Pct Pd alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1986, 17, 2279-2290. | 1.4 | 13 |
| 331 | Diffusional breakdown of a Ag diffusion barrier in a Cu-Ag-Ni diffusion triple. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1986, 17, 933-944. | 1.4 | 7 |
| 332 | Dissipative systems. Reports on Progress in Physics, 1986, 49, 873-949. | 8.1 | 62 |
| 333 | The effect of latent heat on weakly non-linear morphological stability. Journal of Crystal Growth, 1986, 79, 849-865. | 0.7 | 35 |
| 334 | Theory of microstructural development during rapid solidification. Acta Metallurgica, 1986, 34, 823-830. | 2.1 | 1,080 |
| 335 | Interface kinetics and solidification of alloys: A discussion of some phenomenological models. Acta Metallurgica, 1986, 34, 1867-1877. | 2.1 | 47 |
| 336 | Growth of dendritic BiSel from vapour. Journal of Materials Science Letters, 1986, 5, 597-598. | 0.5 | 6 |
| 337 | The First Roughening Transition of ³ He Crystals. Europhysics Letters, 1986, 2, 247-255. | 0.7 | 88 |
| 338 | Dynamical properties of long-wavelength interface fluctuations during nucleation-dominated crystal growth. Physical Review B, 1986, 33, 4927-4935. | 1.1 | 40 |
| 339 | Steady and oscillatory cellular morphologies in rapid solidification. Physical Review B, 1986, 34, 1746-1753. | 1.1 | 16 |
| 340 | The role of reflectivity change in optically induced recrystallization of thin silicon films. Journal of Applied Physics, 1986, 59, 454-458. | 1.1 | 35 |
| 341 | Evidence for scaling in an interfacial growth instability: The solid case. Physical Review A, 1986, 34, 5027-5034. | 1.0 | 20 |
| 342 | Wavelength Selection in Directional Solidification. Physical Review Letters, 1986, 57, 858-861. | 2.9 | 42 |
| 343 | Diffusion-Limited Growth of Wetting Layers. Physical Review Letters, 1986, 57, 353-356. | 2.9 | 92 |
| 344 | Directional solidification with buoyancy in systems with small segregation coefficient. Physical Review B, 1986, 34, 3388-3396. | 1.1 | 51 |
| 345 | Microstructure Formation in Rapidly Solidified Alloys. , 1986, , 81-109. | | 61 |
| 346 | A Thermal Instability in the Laser-Driven Melting and Recrystallization of Thin Silicon Films on Glass Substrates. Journal of Heat Transfer, 1987, 109, 841-847. | 1.2 | 14 |

ARTICLE IF CITATIONS # The Art and Science of Microstructural Control. Science, 1987, 235, 1010-1014. 347 6.0 23 Stability of phase boundaries on thin silicon layers with glass substrates. Journal of Applied Physics, 348 1.1 1987, 62, 474-480. Diffusion limited growth of crystalline domains in phospholipid monolayers. Journal of Chemical 349 1.2 114 Physics, 1987, 86, 4258-4265. Dynamics of dendritic sidebranching in the two-dimensional symmetric model of solidification. 114 Physical Review A, 1987, 36, 3340-3349. Boundary-layer approaches to dendritic growth. Physical Review A, 1987, 35, 3001-3023. 351 1.0 7 Dendritic sidebranching in the three-dimensional symmetric model in the presence of noise. Physical Review A, 1987, 36, 3350-3358. 1.0 139 Onset of fractal growth: Statics and dynamics of diffusion-controlled polymerization. Physical Review B, 1987, 35, 1881-1890. 353 1.1 43 The physics of Czochralski crystal growth. Advances in Solid State Physics, 1987, , 241-263. 0.8 354 Oneâ€dimensional diffusion model for extended solid solution in laser cladding. Journal of Applied 355 1.1 77 Physics, 1987, 61, 2645-2655. Cellular solidification as a bifurcation problem. Physical Review A, 1987, 35, 4364-4377. 1.0 Correction to the heat-balance equation and its influence on velocity selection in dendritic growth. 357 1.0 11 Physical Review A, 1987, 36, 4975-4983. Beyond steady-state lamellar eutectic growth. Physical Review Letters, 1987, 59, 71-74. 69 Thermosolutal convection during directional solidification. II. Flow transitions. Physics of Fluids, 359 1.4 23 1987, 30, 659. Fundamental studies on the purification of liquid aluminum by segregation process. 0.1 Keikinzoku/Journal of Japan Institute of Light Metals, 1987, 37, 228-238. Solidification and casting.. Bulletin of the Japan Institute of Metals, 1987, 26, 687-691. 361 0.1 1 Dynamical structures in Directional Solidification of Mixtures. Physica Scripta, 1987, T19B, 330-333. 1.2 363 FREEZING OF SALT SOLUTIONS ON A VERTICAL WALL. Experimental Heat Transfer, 1987, 1, 181-195. 2.38 364 Self-heating in normal metals and superconductors. Reviews of Modern Physics, 1987, 59, 941-999. 16.4

| | | ATION REPORT | |
|-----|---|--------------|-----------|
| # | Article | IF | Citations |
| 365 | Investigation of the behavior of dissolved gases during freezing. Cryobiology, 1987, 24, 489-503. | 0.3 | 38 |
| 366 | Transplantation phenomena in hydra: Cooperation of position-dependent and structure-dependent factors determines the transplantation result. Developmental Biology, 1987, 122, 113-119. | 0.9 | 17 |
| 367 | Growth instability in diffusion controlled polymerization. Synthetic Metals, 1987, 18, 19-23. | 2.1 | 16 |
| 368 | Solid Solubility in Laser Cladding. Jom, 1987, 39, 18-23. | 0.9 | 6 |
| 369 | Numerical Analysis of Cellular Solidification Microstructures. ACS Symposium Series, 1987, , 295-333. | 0.5 | 0 |
| 370 | An analytical model of irregular eutectic growth and its application to Fe-C. Acta Metallurgica, 1987, 35, 1119-1128. | 2.1 | 140 |
| 371 | Micro-reaction engineering applications of reaction engineering to processing of electronic and photonic materials. Chemical Engineering Science, 1987, 42, 923-958. | 1.9 | 80 |
| 372 | Survey of quantitative analyses of the effects of capillary shaping on crystal growth. Journal of Crystal Growth, 1987, 82, 74-80. | 0.7 | 8 |
| 373 | Morphological and thermosolutal instabilities inside a deformable solute boundary layer during unidirectional solidification. Journal of Crystal Growth, 1987, 85, 49-58. | 0.7 | 6 |
| 374 | Microstructural characterization of rapidly solidified aluminum transition metal alloys. Materials Science and Engineering, 1987, 91, 201-216. | 0.1 | 6 |
| 375 | Modelling mushy regions. Flow, Turbulence and Combustion, 1987, 44, 1-7. | 0.2 | 17 |
| 376 | Linear instability of the electroforming process. Journal of Engineering Mathematics, 1987, 21, 149-154 | 4. 0.6 | 1 |
| 377 | Spatially periodic nonstationary processes accompanying crystallization. Journal of Applied Mechanics and Technical Physics, 1987, 28, 111-119. | 0.1 | 0 |
| 378 | Banding structures in induced morphology crystal aggregates of CaCO3. Journal of Materials Science, 1987, 22, 3095-3102. | 1.7 | 33 |
| 379 | Coarsening during stircasting. Journal of Materials Science, 1987, 22, 1057-1060. | 1.7 | 5 |
| 380 | Morphological stability analysis of partial wetting. Annals of Physics, 1987, 176, 359-392. | 1.0 | 90 |
| 381 | The planar to cellular transition during the directional solidification of alloys. Acta Metallurgica, 1987, 35, 2443-2452. | 2.1 | 60 |
| 382 | Rapid dendrite growth in undercooled alloys. Acta Metallurgica, 1987, 35, 957-964. | 2.1 | 560 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 383 | Surface solidification with a moving heat source: A study of solidification parameters. Acta Metallurgica, 1987, 35, 81-87. | 2.1 | 12 |
| 384 | A critical examination of the dendrite growth models: Comparison of theory with experimental data. Acta Metallurgica, 1987, 35, 175-183. | 2.1 | 24 |
| 385 | Petrov-Galerkin methods for natural convection in directional solidification of binary alloys. International Journal for Numerical Methods in Fluids, 1987, 7, 761-791. | 0.9 | 22 |
| 386 | Scaling in an interfacial growth instability. Superlattices and Microstructures, 1987, 3, 581-587. | 1.4 | 3 |
| 387 | Viscous fingering as a first step toward understanding dendrites. Superlattices and Microstructures, 1987, 3, 617-623. | 1.4 | 4 |
| 388 | Finite element simulation of planar instabilities during solidification of an undercooled melt. Journal of Computational Physics, 1987, 69, 81-111. | 1.9 | 46 |
| 389 | Heat transfer in shaped thin-walled semi-transparent crystals pulled from the melt. Journal of Crystal Growth, 1987, 82, 31-38. | 0.7 | 35 |
| 390 | Growth and characterization of shaped sapphire crystals. Journal of Crystal Growth, 1987, 82, 95-99. | 0.7 | 12 |
| 391 | Anisotropic interface kinetics and tilted cells in unidirectional solidification. Journal of Crystal Growth, 1987, 83, 560-571. | 0.7 | 57 |
| 392 | Nonplanar interface morphologies during unidirectional solidification of a binary alloy. Journal of Crystal Growth, 1987, 84, 371-388. | 0.7 | 55 |
| 393 | Dendritic solidification in a binary alloy melt: Comparison of theory and experiment. Journal of Crystal Growth, 1987, 83, 391-402. | 0.7 | 21 |
| 394 | Morphological stability criteria during directional solidification. Journal of Crystal Growth, 1987, 83, 47-50. | 0.7 | 0 |
| 395 | Interfacial instabilities in directional solidification of dilute binary alloys: The Kuramoto-Sivashinsky equation. Physica D: Nonlinear Phenomena, 1987, 26, 403-410. | 1.3 | 26 |
| 396 | Instabilities of a Moving Nematic-Isotropic Interface. Physical Review Letters, 1987, 58, 2318-2321. | 2.9 | 80 |
| 397 | Theory of dendrite dynamics. Nuclear Physics, Section B, Proceedings Supplements, 1987, 2, 259-270. | 0.5 | 55 |
| 398 | cellular microstructure of chill block melt spun Ni-Mo alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1987, 18, 1663-1678. | 1.4 | 11 |
| 399 | Cellular-dendritic transition in directionally solidified binary alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1987, 18, 167-170. | 1.4 | 13 |
| 400 | Theory of transport processes in single crystal growth from the melt. AICHE Journal, 1988, 34, 881-911. | 1.8 | 286 |

ARTICLE IF CITATIONS One-dimensional finite-medium diffusion model for extended solid solution in laser cladding of Hf on 401 2.1 45 nickel. Acta Metallurgica, 1988, 36, 701-712. Thermosolutal convection in a floating zone: the case of an unstable solute gradient. International Journal of Heat and Mass Transfer, 1988, 31, 1923-1932. 2.5 Non-linear simulation of dendritic solidification of an undercooled melt. International Journal for 403 1.5 19 Numerical Methods in Engineering, 1988, 25, 415-444. On the morphological instability of growing crystals (I) morphological peculiarities of the transition shapes of crystals in diffusion-controlled regime of growth. Crystal Research and 404 Technology, 1988, 23, 585-594. On the morphological instability of the growing crystals (III). Micro-interferometric investigations of the morphological stability of KDP crystals growing from aqueous solutions. Crystal Research and 405 0.6 15 Technology, 1988, 23, 1061-1071. Hydrodynamic and free boundary instabilities during crystal growth: The effect of a plane stagnation flow. Communications on Pure and Applied Mathematics, 1988, 41, 683-706. 1.2 A nonlinear stability analysis of a model equation for alloy solidification $\hat{a} \in \mathbb{C}^{1}$. Nonlinear Analysis: 407 0.6 2 Theory, Methods & Applications, 1988, 12, 617-645. Directional solidification of metallic alloys: The nature of the bifurcation from planar to cellular 408 63 interface. Journal of Crystal Growth, 1988, 92, 616-628. Morphological stability analysis of directional solidification in thin samples with lateral heat 409 0.7 6 transfer. Journal of Crystal Growth, 1988, 89, 405-414. Effect of solidification front velocity on the characteristics of aluminium-rich Alî—, Mn alloy solutions 0.1 extended by rapid solidification. Materials Science and Engineering, 1988, 98, 201-205. Cellular spacingsâ€"II. Dynamical studies. Acta Metallurgica, 1988, 36, 1175-1185. 411 2.1 67 Toward a nonequilibrium thermodynamics of two-phase materials. Archive for Rational Mechanics 1.1 and Analysis, 1988, 100, 275-312. Multiphase thermomechanics with interfacial structure 1. Heat conduction and the capillary balance 413 1.1 110 law. Archive for Rational Mechanics and Analysis, 1988, 104, 195-221. Crystal growth from the melt by capillary shaping techniques. Advances in Space Research, 1988, 8, 414 1.2 17-34. Local equilibrium model of morphological instabilities in chemical vapor deposition. Thin Solid Films, 415 0.8 40 1988, 158, 313-341. The effect of an electric field on the morphological stability of the crystal-melt interface of a binary 29 alloy. Journal of Crystal Growth, 1988, 88, 1-15. Dendritic growth of α(Fe,Si) ferrite in annealed Fe80Si8B12 metallic glass. Journal of Crystal Growth, 417 0.7 4 1988, 92, 629-638. Flow-induced morphological instabilities: The rotating disc. Journal of Crystal Growth, 1988, 87, 34 385-396.

| | CITATION | Report | |
|-----|--|--------|-----------|
| # | Article | IF | CITATIONS |
| 419 | Directional solidification with heat losses. Journal of Crystal Growth, 1988, 91, 538-556. | 0.7 | 26 |
| 421 | Heat of mixing and morphological stability. Journal of Crystal Growth, 1988, 92, 88-96. | 0.7 | 2 |
| 422 | Terracing in HgCdTe LPE films grown from Te solution. Journal of Crystal Growth, 1988, 86, 173-182. | 0.7 | 24 |
| 423 | Morphology and stability of a solid-liquid interface during solidification of an icosahedral quasicrystal in Al-Mn binary alloys. Physica B: Condensed Matter, 1988, 153, 209-214. | 1.3 | 3 |
| 424 | Effect of melt spinning on grain size and texture in Ni-Mo alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1988, 19, 1711-1720. | 1.4 | 3 |
| 425 | Dendritic growth and directional solidification. Nuclear Physics, Section B, Proceedings Supplements, 1988, 5, 225-228. | 0.5 | 2 |
| 426 | Finite element methods for unsteady solidification problems arising in prediction of morphological structure. Journal of Scientific Computing, 1988, 3, 77-108. | 1.1 | 22 |
| 427 | Morphological evolution of growing crystals: A Monte Carlo simulation. Physical Review A, 1988, 38, 2447-2456. | 1.0 | 116 |
| 429 | Heat Transfer During Melting and Solidification of Metals. Journal of Heat Transfer, 1988, 110, 1205-1219. | 1.2 | 172 |
| 430 | Wavelength selection of cellular patterns. Scripta Metallurgica, 1988, 22, 893-898. | 1.2 | 9 |
| 432 | Perturbation Methods for Solid Diffusion in a Stefan Problem. SIAM Journal on Mathematical Analysis, 1988, 19, 86-99. | 0.9 | 5 |
| 433 | The critical concentration for formation of segregation-free solid by solute trapping during rapid solidification from the melt. Materials Letters, 1988, 6, 181-182. | 1.3 | 8 |
| 434 | Wavelength dependence of cells of finite depth in directional solidification. Physical Review B, 1988, 38, 583-592. | 1.1 | 30 |
| 435 | Stability of a nonequilibrium steady-state interface. Physical Review A, 1988, 37, 656-659. | 1.0 | 23 |
| 436 | Role of impurities in zone melting recrystallization of 10 μm thick polycrystalline silicon films. Journal of Applied Physics, 1988, 63, 2660-2668. | 1.1 | 16 |
| 437 | Evolution of the Dendritic Instability in Solidifying Succinonitrile. Physical Review Letters, 1988, 61, 173-176. | 2.9 | 46 |
| 438 | Absence of Selection in Directional Solidification. Physical Review Letters, 1988, 60, 317-320. | 2.9 | 54 |
| 439 | Cellular growth near absolute stability. Physical Review B, 1988, 38, 11452-11460. | 1.1 | 55 |

| # | Article | IF | Citations |
|-----|--|-----|-----------|
| 440 | Solitary Modes and the Eckhaus Instability in Directional Solidification. Physical Review Letters, 1988, 61, 2574-2577. | 2.9 | 148 |
| 441 | Formation of deep grooves in directional solidification. Physical Review B, 1988, 37, 370-378. | 1.1 | 11 |
| 442 | Modified asymptotic approach to modeling a dilute-binary-alloy solidification front. Physical Review B, 1988, 37, 7603-7608. | 1.1 | 21 |
| 443 | Noise-induced sidebranching in the boundary-layer model of dendritic solidification. Physical Review A, 1988, 37, 3126-3143. | 1.0 | 27 |
| 444 | Pattern Formation during Mesophase Growth in Liquid Crystals. Europhysics Letters, 1988, 7, 43-47. | 0.7 | 13 |
| 446 | Observation of Electrochemical Polymerization Pattern of Conducting Polymer and Its Interpretation by Fractal Dimension. Japanese Journal of Applied Physics, 1988, 27, L457-L460. | 0.8 | 31 |
| 447 | Epitaxial Lateral Overgrowth of GaAs by LPE. Japanese Journal of Applied Physics, 1988, 27, L964-L967. | 0.8 | 160 |
| 448 | Development of the dendritic growth theory Bulletin of the Japan Institute of Metals, 1988, 27, 540-547. | 0.1 | 2 |
| 449 | Observation of instabilities leading to side-branch formation in the dendritic growth of cubic (F.C.C.) 4He. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1988, 57, 283-289. | 0.6 | 1 |
| 450 | Cellular Solidification. , 1988, , 90-100. | | 0 |
| 451 | FUNDAMENTALS OF DENDRITIC SOLIDIFICATION—I. STEADY-STATE TIP GROWTHâ€â€Research supported by th Marshall Space Flight Center, through the Space Processing Applications Rocket (SPAR) Program, Office of Application, NASA , 1988, , 247-261. | 10 | 8 |
| 452 | On directional solidification of a faceted crystal. Journal De Physique, 1989, 50, 1377-1391. | 1.8 | 14 |
| 453 | Directional solidification near minimumcâ^ž: Two-dimensional isolas and multiple solutions. Physical Review B, 1989, 40, 11140-11152. | 1.1 | 14 |
| 454 | Cellular solutions for highly nonequilibrium directional solidification. Physical Review A, 1989, 39, 3208-3210. | 1.0 | 4 |
| 455 | Information-theoretic study of pattern formation: Rate of entropy production of random fractals. Physical Review A, 1989, 39, 1420-1428. | 1.0 | 12 |
| 456 | Morphological evolution of crystals growing in the presence of a uniform drift: A Monte Carlo simulation. Physical Review A, 1989, 39, 6397-6401. | 1.0 | 20 |
| 457 | Steady-state cellular growth during directional solidification. Physical Review A, 1989, 39, 3041-3052. | 1.0 | 61 |
| 458 | Interfacial growth in driven diffusive systems. Physical Review A, 1989, 39, 4783-4788. | 1.0 | 9 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 459 | Morphological Instabilities in Drectional Solidification of a Binary Alloy: End Effects. SIAM Journal on Applied Mathematics, 1989, 49, 152-164. | 0.8 | 8 |
| 460 | Growth Dynamics of Chemical Vapor Deposition. Physical Review Letters, 1989, 62, 776-779. | 2.9 | 86 |
| 461 | Density-functional theory of crystal-melt interfaces. Physical Review B, 1989, 39, 6775-6791. | 1.1 | 106 |
| 462 | Destabilization of a flat nematic-isotropic interface. Physical Review A, 1989, 40, 2042-2056. | 1.0 | 62 |
| 463 | On entropy generation in phase hange heat conduction. Journal of Applied Physics, 1989, 66, 4053-4061. | 1.1 | 13 |
| 464 | Role of noise in the initial stage of solidification instability. Physical Review B, 1989, 39, 2529-2531. | 1.1 | 15 |
| 465 | Cellular dynamics during directional solidification: Interaction of multiple cells. Physical Review B, 1989, 39, 11705-11723. | 1.1 | 31 |
| 466 | Fractal models for the autocatalytic growth of amorphous thin films. Journal of Applied Physics, 1989, 66, 146-151. | 1.1 | 4 |
| 467 | Directional solidification: Transition from cells to dendrites. Physical Review Letters, 1989, 63, 2377-2380. | 2.9 | 40 |
| 468 | Shallow cells in directional solidification. Physical Review Letters, 1989, 63, 573-575. | 2.9 | 22 |
| 469 | Dendrites, Viscous Fingers, and the Theory of Pattern Formation. Science, 1989, 243, 1150-1156. | 6.0 | 325 |
| 470 | Cell-To-Dendrite Transition in Directional Solidification. Europhysics Letters, 1989, 9, 713-718. | 0.7 | 11 |
| 471 | Development of microstructures in Feâ^'15Niâ^'15Cr single crystal electron beam welds. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1989, 20, 1125-1138. | 1.4 | 193 |
| 472 | Extended solid solution and nonequilibrium phase diagram for Ni-Al alloy formed during laser cladding. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1989, 20, 363-371. | 1.4 | 31 |
| 473 | Solidification microstructures near the limit of absolute stability. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1989, 20, 769-777. | 1.4 | 62 |
| 474 | Freezing diagrams: Part I. Development and Implications for glass formability. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1989, 20, 287-297. | 1.4 | 5 |
| 475 | Development of solidification microstructures in the presence of fibers or channels of finite width. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1989, 114, 133-146. | 2.6 | 37 |
| 476 | Freezing characteristics of ethylene glycol solution. Heat and Mass Transfer, 1989, 24, 303-309. | 0.2 | 5 |

| | CITATION | REPORT | |
|-----|--|-----------|-----------|
| # | ARTICLE Rapid solidification of Al-Cu eutectic alloy by laser remelting. Acta Metallurgica, 1989, 37, 3305-3313. | IF 2.1 | Citations |
| 478 | Experimental investigation of the dynamics of spontaneous pattern formation during dendritic ice crystal growth. Journal of Crystal Growth, 1989, 96, 277-292. | 0.7 | 39 |
| 479 | On a finite element method for the calculation of steady cellular interfaces in the one-sided model of solidification. Communications in Applied Numerical Methods, 1989, 5, 309-320. | 0.5 | 8 |
| 480 | Morphological transitions in the rapid solidification regime: A re-examination of the fundamental validity of the absolute stability concept of Mullins and Sekerka. Acta Metallurgica, 1989, 37, 1109-1119. | 2.1 | 15 |
| 481 | Sinusoidal perturbation solutions for planar solidification. International Journal of Heat and Mass Transfer, 1989, 32, 935-941. | 2.5 | 10 |
| 482 | Structure and chemistry of metal/ceramic interfaces. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1989, 107, 187-197. | 2.6 | 90 |
| 483 | Universality of critical screening in the formation of fractal patterns. Physica A: Statistical Mechanics and Its Applications, 1989, 157, 656-668. | 1.2 | 11 |
| 484 | A nonlinear stability analysis of a fixed-boundary model equation for alloy solidification. Mathematical and Computer Modelling, 1989, 12, 17-43. | 2.0 | 1 |
| 485 | Ordered shapes in nonequilibrium growth. Physica D: Nonlinear Phenomena, 1989, 38, 16-28. | 1.3 | 36 |
| 486 | Nonequilibrium processes of melt solidification during programmed temperature changes and the metastable phases formation. Thermochimica Acta, 1989, 153, 349-417. | 1.2 | 9 |
| 487 | Electrostatic interactions in phospholipid membranes. Journal of Colloid and Interface Science, 1989, 131, 56-67. | 5.0 | 74 |
| 488 | A boundary integral approach to unstable solidification. Journal of Computational Physics, 1989, 85, 342-389. | 1.9 | 50 |
| 489 | The effect of an electric field on the morphological stability of the crystal-melt interface of a binary alloy. Journal of Crystal Growth, 1989, 94, 334-346. | 0.7 | 25 |
| 490 | Flow-induced morphological instabilities due to temporarily-modulated stagnation-point flow. Journal of Crystal Growth, 1989, 96, 737-746. | 0.7 | 11 |
| 491 | Compositional convection in viscous melts. Nature, 1989, 338, 571-574. | 13.7 | 87 |
| 492 | The growth of compositionally stratified solid above a horizontal boundary. Journal of Fluid Mechanics, 1989, 199, 29-53. | 1.4 | 20 |
| 493 | Pattern selection relations for deep-rooted binary alloy cells. Scripta Metallurgica, 1989, 23, 1603-1608. | 1.2 | 23 |
| 494 | Modelling of microstructure formation in solidification processes. International Materials Reviews, 1989, 34, 93-124. | 9.4 | 467 |

| # 495 | ARTICLE Melting and Freezing. Advances in Heat Transfer, 1989, , 1-95. | lF 0.4 | Citations |
|----------|--|-----------|-----------|
| 496 | Correlation between solidification parameters and weld microstructures. International Materials Reviews, 1989, 34, 213-245. | 9.4 | 414 |
| 497 | Hydrodynamic and morphological stability of the unidirectional solidification of a freezing binary alloy: a simple model. Journal of Fluid Mechanics, 1989, 202, 339-366. | 1.4 | 48 |
| 498 | On diffusion in two-phase systems: the sharp interface versus the transition layer. , 1989, , 99-112. | | 3 |
| 499 | Parity-breaking transitions of modulated patterns in hydrodynamic systems. Physical Review Letters, 1989, 63, 1954-1957. | 2.9 | 128 |
| 500 | Theory of Transport Processes in Semiconductor Crystal Growth from the Melt. Advances in Chemistry Series, 1989, , 35-103. | 0.6 | 1 |
| 501 | Microstructural characteristics of three RS aluminium alloys: Al– 4Cr–1 Fe, Al–6·43Cr-1·67Zr, and Al–5Cr–2Zr. Materials Science and Technology, 1990, 6, 528-534. | 0.8 | 7 |
| 502 | The Planar to Cellular Transition and the Long Time Scale Dynamics of Pattern Formation During Thin-Film Directional Solidification. Materials Research Society Symposia Proceedings, 1990, 205, 319. | 0.1 | 1 |
| 503 | Interface Stability During Rapid Directional Solidification. Materials Research Society Symposia Proceedings, 1990, 205, 325. | 0.1 | 3 |
| 504 | Double-Diffusive Convection and its Effects Under Reduced Gravity. , 1990, , 355-368. | | 0 |
| 505 | Interface Instabilities During Laser Melting of Thin Films. Applied Mechanics Reviews, 1990, 43, S70-S75. | 4.5 | 1 |
| 506 | Directional Solidification of a Faceted Crystal. Applied Mechanics Reviews, 1990, 43, S53-S53. | 4.5 | 0 |
| 507 | Effects of Elastic Stress on the Stability of a Solid-Liquid Interface. Applied Mechanics Reviews, 1990, 43, S54-S55. | 4.5 | 0 |
| 508 | Oscillatory Instabilities in Cellular Solidification. Applied Mechanics Reviews, 1990, 43, S56-S58. | 4.5 | 1 |
| 509 | Long–Wave Morphologies in Directional Solidification. Applied Mechanics Reviews, 1990, 43, S85-S88. | 4.5 | 2 |
| 510 | Effect of a crystal–melt interface on Taylorâ€vortex flow. Physics of Fluids A, Fluid Dynamics, 1990, 2, 700-705. | 1.6 | 21 |
| 511 | Modeling of solidification microstructures in concentrated solutions and intermetallic systems. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1990, 21, 1311-1318. | 1.4 | 12 |
| 512 | Analysis of solidification microstructures in Fe-Ni-Cr single-crystal welds. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1990, 21, 1767-1782. | 1.4 | 219 |

| # | ARTICLE Modeling of solidification microstructures in concentrated solutions and intermetallic systems. | IF | CITATIONS |
|-----|--|-----|-----------|
| 513 | Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1990, 21, 1311-1318. | 1.4 | 31 |
| 514 | Formation of metastable crystalline phases in light-metal systems by rapid solidification. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1990, 61, 487-509. | 0.6 | 30 |
| 515 | On the origin of banded microstructure in rapidly solidified alloys: The case of Al-10%Mn quasicrystalline system. Journal of Crystal Growth, 1990, 106, 387-392. | 0.7 | 6 |
| 516 | A numerical and analytical study of nonlinear bifurcations associated with the morphological stability of two-dimensional single crystals. Journal of Crystal Growth, 1990, 100, 89-108. | 0.7 | 19 |
| 517 | Microscopic study of coupled heat and mass transport during unidirectional solidification of binary solutions—I. thermal analysis. International Journal of Heat and Mass Transfer, 1990, 33, 29-38. | 2.5 | 16 |
| 518 | Numerical and analytical solutions of one-dimensional freezing of dilute binary alloys with coupled heat and mass transfer. International Journal of Heat and Mass Transfer, 1990, 33, 593-602. | 2.5 | 15 |
| 519 | Effects of internal radiative transfer on natural convection and heat transfer in a vertical crystal growth configuration. International Journal of Heat and Mass Transfer, 1990, 33, 1957-1968. | 2.5 | 22 |
| 520 | Influence of icosahedral inclusions on the thermal stability of Al-Fe-Mg system alloys. Metal Science and Heat Treatment, 1990, 32, 208-210. | 0.2 | 1 |
| 521 | Role of physical factors in solid – liquid interface formation during oriented eutectic growth. Crystal Research and Technology, 1990, 25, 1303-1309. | 0.6 | 5 |
| 522 | Microscopic study of coupled heat and mass transport during unidirectional solidification of binary solutions—II. Mass transfer analysis. International Journal of Heat and Mass Transfer, 1990, 33, 39-53. | 2.5 | 26 |
| 523 | Extension of solid solubility in magnesium by rapid solidification. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1990, 125, 249-265. | 2.6 | 81 |
| 524 | Growth morphology with anisotropic surface kinetics. Journal of Crystal Growth, 1990, 100, 313-329. | 0.7 | 73 |
| 525 | Effect of anisotropic thermal conductivity on the morphological stability of a binary alloy. Journal of Crystal Growth, 1990, 100, 459-466. | 0.7 | 16 |
| 526 | Oscillatory instability in a model of directional solidification. Journal of Crystal Growth, 1990, 102, 481-490. | 0.7 | 7 |
| 527 | Dendritic growth and directional solidification. Journal of Crystal Growth, 1990, 99, 156-160. | 0.7 | 15 |
| 528 | Morphological instability in a float zone. Journal of Crystal Growth, 1990, 100, 31-50. | 0.7 | 7 |
| 529 | The effect of an electric field on the morphological stability of the crystal-melt interface of a binary alloy III. Weakly nonlinear theory. Journal of Crystal Growth, 1990, 100, 78-88. | 0.7 | 6 |
| 530 | Fluid flow and microstructure development. , 1990, , 12-26. | | 0 |

| | CITATION R | EPORT | |
|-----|---|-------|-----------|
| # | Article | IF | Citations |
| 531 | Primary arm spacing in directionally solidified Pb-10 wt pct Sn alloys. , 1990, , . | | 0 |
| 532 | CHAPTER 5. PHYSICAL PROCESSES IN THE EVOLUTION OF MAGMAS. , 1990, , 125-152. | | 4 |
| 533 | On understanding cellular, dentritic and Widmanst $	ilde{A}$ ten patterns. , 1990, , 27-43. | | 1 |
| 535 | Electrochemical growth of poly(3-dodecylthiophene) and its interpretation as a fractal. Journal of Physics Condensed Matter, 1990, 2, 6109-6118. | 0.7 | 13 |
| 536 | Stability of an array of deep cells in directional solidification. Physical Review A, 1990, 41, 6741-6748. | 1.0 | 17 |
| 537 | Hadron bubble evolution into the quark sea. Physical Review D, 1990, 41, 2449-2461. | 1.6 | 23 |
| 538 | Parity breaking in eutectic growth. Physical Review Letters, 1990, 65, 1458-1461. | 2.9 | 37 |
| 539 | Phase dynamics in directional solidification. Physical Review Letters, 1990, 64, 1935-1938. | 2.9 | 35 |
| 540 | Destabilization of a faceted smectic-A–smectic-Binterface. Physical Review Letters, 1990, 64, 1381-1384. | 2.9 | 27 |
| 541 | Generic features of late-stage crystal growth. Physical Review A, 1990, 42, 895-903. | 1.0 | 63 |
| 542 | Shapes, wavelength selection, and the cellular-dendritic â€~â€~transition'' in directional solidification. Physical Review A, 1990, 42, 7368-7376. | 1.0 | 32 |
| 543 | Directional solidification cells at low velocities. Physical Review A, 1990, 41, 4421-4432. | 1.0 | 18 |
| 544 | Moving interface: The stability tongue and phenomena within. Physical Review A, 1990, 41, 7090-7093. | 1.0 | 21 |
| 545 | Analysis of stability of a planar solid-liquid interface in a dilute binary alloy. Journal of Materials Research, 1990, 5, 223-228. | 1.2 | 5 |
| 546 | Growth Instability During Nonuniform Directional Solidification of Pure Metals. Journal of Applied Mechanics, Transactions ASME, 1990, 57, 529-536. | 1.1 | 36 |
| 547 | Solidification processing at near-rapid and rapid rates (Keynote Paper). , 1990, , 173-194. | | 15 |
| 548 | Solidification and Structure of Welds. The Materials Processingory and Practices, 1990, 8, 35-78. | 0.1 | 3 |
| 549 | Morphological instability in rapid directional solidification. Acta Metallurgica Et Materialia, 1990, 38, 2683-2693. | 1.9 | 93 |

| | Сітат | ion Report | |
|-----|---|------------|-----------|
| # | Article | IF | CITATIONS |
| 550 | Morphological instabilities in physico-chemical systems. Earth-Science Reviews, 1990, 29, 175-181. | 4.0 | 8 |
| 551 | The fluid mechanics of solidification. Journal of Fluid Mechanics, 1990, 212, 209. | 1.4 | 237 |
| 552 | Hydrodynamic interactions in directional solidification. Journal of Fluid Mechanics, 1990, 212, 241. | 1.4 | 100 |
| 553 | The role of absolute and constitutional supercooling in zone melting-recrystallization of silicon films. Materials Letters, 1990, 9, 456-459. | 1.3 | 4 |
| 554 | Overview No. 87 Solidification microstructures: Recent developments and future directions. Acta Metallurgica Et Materialia, 1990, 38, 1-17. | 1.9 | 143 |
| 555 | Solidification structures during laser treatment. Scripta Metallurgica Et Materialia, 1990, 24, 593-598. | 1.0 | 13 |
| 556 | The microstructure of rapidly solidified Alî—,Fe alloys subjected to laser surface treatment. Acta Metallurgica Et Materialia, 1990, 38, 2587-2599. | 1.9 | 139 |
| 557 | Morphological instabilities in physico-chemical systems. Earth-Science Reviews, 1990, 29, 175-181. | 4.0 | 15 |
| 558 | Velocity Effects in Unstable Solidification. SIAM Journal on Applied Mathematics, 1990, 50, 1-15. | 0.8 | 13 |
| 559 | Long-Wave Morphological Instabilities in the Directional Solidification of a Dilute Binary Mixture. SIAM Journal on Applied Mathematics, 1990, 50, 420-436. | 0.8 | 25 |
| 560 | Limit of absolute stability for crystal growth into undercooled alloy melts. Acta Metallurgica Et Materialia, 1991, 39, 2795-2798. | 1.9 | 13 |
| 561 | Steady state thin film cellular solidification as a well-posed Stefan problem. Scripta Metallurgica Et Materialia, 1991, 25, 2671-2676. | 1.0 | 5 |
| 562 | Flux dynamics and the growth of the superconducting phase. Physical Review Letters, 1991, 66, 3067-3070. | 2.9 | 110 |
| 563 | Microstructural development and solidification cracking susceptibility of austenitic stainless steel welds. International Materials Reviews, 1991, 36, 16-44. | 9.4 | 277 |
| 564 | The effects of interface attachment kinetics on solidification interface morphologies. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1991, 22, 235-249. | 1.4 | 47 |
| 565 | Transport and degradation in transition metal oxides in chemical potential gradients. Materials Science and Engineering Reports, 1991, 7, 1-86. | 5.8 | 25 |
| 566 | <title>Characterization of the Bridgman crystal growth process by radiographic imaging</title> . , 1991, 1557, 236. | | 3 |
| 567 | Elemental partitioning and microstructural development in duplex stainless steel weld metal. Acta Metallurgica Et Materialia, 1991, 39, 273-285. | 1.9 | 93 |

| # | Article | IF | CITATIONS |
|-----|--|------|-----------|
| 568 | The Stefan problem with small surface tension. Transactions of the American Mathematical Society, 1991, 328, 465-515. | 0.5 | 21 |
| 569 | Design of powder metallurgy aluminium alloys for applications at elevated temperatures Part 1 Microstructure of high pressure gas atomized powders. Materials Science and Technology, 1991, 7, 334-340. | 0.8 | 37 |
| 570 | Solidification Interface Instabilities During Zone Melting Recrystallization Processing of Multilayer thin Film Structures. Materials Research Society Symposia Proceedings, 1991, 237, 615. | 0.1 | 0 |
| 571 | Influence of mass diffusion on the stability of thermophoretic growth of a solid from the vapor phase. Advances in Space Research, 1991, 11, 277-281. | 1.2 | 4 |
| 572 | Directional solidification in immiscible systems: The influence of gravity. Advances in Space Research, 1991, 11, 291-295. | 1.2 | 10 |
| 573 | Oscillatory instabilities in rapid directional solidification: bifurcation theory. Journal of Crystal Growth, 1991, 112, 670-690. | 0.7 | 20 |
| 574 | Evolution of solidification microstructures at high interface growth rates. Journal of Crystal Growth, 1991, 109, 113-119. | 0.7 | 8 |
| 575 | New periodic morphologies observed during dentritic growth of ammonium chloride crystals in thin layers. Journal of Crystal Growth, 1991, 108, 637-646. | 0.7 | 20 |
| 576 | Long-wave instabilities in directional solidification with remote flow. Journal of Crystal Growth, 1991, 112, 539-553. | 0.7 | 22 |
| 577 | Thermoelectric investigation of solidification of lead II. Lead alloys. Journal of Crystal Growth, 1991, 112, 563-570. | 0.7 | 12 |
| 578 | The effect of radiative heat transfer on morphological stability during directional solidification of a binary melt. Journal of Crystal Growth, 1991, 108, 367-376. | 0.7 | 5 |
| 579 | Buoyancy effects of a growing, isolated dendrite. Journal of Crystal Growth, 1991, 114, 153-185. | 0.7 | 21 |
| 580 | Nonequilibrium effects during the ledgewise growth of a solid-liquid interface. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1991, 22, 1249-1258. | 1.4 | 14 |
| 581 | Atomic structure of the crystalline/amorphous interface in a directionally crystallized Pd80Si20 alloy. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1991, 22, 1287-1298. | 1.4 | 5 |
| 582 | Modeling of crystal growth during rapid solidification. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1991, 22, 2475-2485. | 1.4 | 4 |
| 583 | Faceted crystal growth in two dimensions. Nature, 1991, 350, 322-324. | 13.7 | 97 |
| 584 | A new growth instability in colloidal crystallization. Nature, 1991, 351, 553-555. | 13.7 | 53 |
| 585 | Roles of â€~solute' and heat flow in the development of polymer microstructure. Polymer, 1991, 32, 3268-3283. | 1.8 | 33 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 586 | Modelling of growth and microstructure selection in rapid solidification: a progress report. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 133, 33-39. | 2.6 | 23 |
| 587 | Formation of microstructure in rapidly solidified materials and its effect on properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 137, 77-85. | 2.6 | 13 |
| 588 | Solidification microstructure evolution in the presence of inert particles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1991, 147, 9-21. | 2.6 | 73 |
| 589 | Stability of melt crystal growth under microgravity conditions. Advances in Space Research, 1991, 11, 307-321. | 1.2 | 3 |
| 590 | The influence of the freezing process on vapour transport during sublimation in vacuum-freeze-drying. International Journal of Heat and Mass Transfer, 1991, 34, 2395-2408. | 2.5 | 58 |
| 591 | Simulation of surface morphologies in crystal growth from the vapor. Journal of Crystal Growth, 1991, 109, 43-49. | 0.7 | 9 |
| 592 | Effect of nonequilibrium interface kinetics on cellular breakdown of planar interfaces during rapid solidification of Si-Sn. Journal of Crystal Growth, 1991, 109, 107-112. | 0.7 | 45 |
| 593 | Instability of faceted crystal shapes growing under diffusion control. Journal of Crystal Growth, 1991, 112, 235-243. | 0.7 | 12 |
| 594 | Stabilization of needle-crystals by the Gibbs-Thomson effect. Communications in Mathematical Physics, 1991, 140, 241-274. | 1.0 | 1 |
| 595 | Solidified morphology and stability of solid-liquid interface of icosahedral quasicrystal in a rapidly solidified Al-Mn alloy. Journal of Materials Science Letters, 1991, 10, 167-170. | 0.5 | 2 |
| 596 | In Situ Dynamic-Light-Scattering Study of a Cellular Interface Arising During Directional Growth. Europhysics Letters, 1991, 15, 197-202. | 0.7 | 0 |
| 597 | Interface Stability, Growth and Morphology in Icosahedral Quasi Crystals. Japanese Journal of Applied Physics, 1991, 30, L1132-L1135. | 0.8 | 11 |
| 598 | Spontaneous parity-breaking transition in directional growth of lamellar eutectic structures. Physical Review A, 1991, 44, 6533-6543. | 1.0 | 78 |
| 599 | Hydrodynamic and interfacial patterns with broken space-time symmetry. Physical Review A, 1991, 43, 6700-6721. | 1.0 | 74 |
| 600 | Directional solidification with interface dissipation. Physical Review A, 1991, 43, 6920-6933. | 1.0 | 22 |
| 601 | Growth morphologies of crystal surfaces. Physical Review A, 1991, 43, 2977-2992. | 1.0 | 102 |
| 602 | Directional solidification in a rotating system with small segregation coefficient. Physical Review B, 1991, 44, 4170-4173. | 1.1 | 1 |
| 603 | Growth of lamellar eutectic structures: The axisymmetric state. Physical Review A, 1991, 44, 6513-6532. | 1.0 | 70 |

| # | Article | IF | CITATIONS |
|-----|---|------|-----------|
| 604 | Traveling-wave states in deep-groove directional solidification. Physical Review Letters, 1991, 66, 236-239. | 2.9 | 14 |
| 605 | Dynamics of one-dimensional interfaces: an experimentalist's view. Advances in Physics, 1991, 40, 1-51. | 35.9 | 101 |
| 606 | Formation, microstructure, chemical long-range order, and stability of quasicrystals in Al–Pd–Mn alloys. Journal of Materials Research, 1991, 6, 2646-2652. | 1.2 | 31 |
| 607 | Pattern Formation During the Growth of Liquid Crystal Phases. MRS Bulletin, 1991, 16, 38-45. | 1.7 | 19 |
| 608 | Bifurcation analysis of solutal convection during directional solidification. Physics of Fluids A, Fluid Dynamics, 1991, 3, 535-550. | 1.6 | 19 |
| 609 | Principal Ideas of Crystal Growth. , 1991, , 1-62. | | 1 |
| 610 | NUMERICAL SOLUTION OF THE UNSTEADY SOLIDIFICATION PROBLEM WITH A SOLUTE ELEMENT BY USING THE BOUNDARY-FITTED COORDINATE SYSTEM. Numerical Heat Transfer, Part B: Fundamentals, 1992, 22, 63-77. | 0.6 | 6 |
| 611 | Directional Solidification of Salt Water: Deep and Shallow Cells. Europhysics Letters, 1992, 19, 337-342. | 0.7 | 28 |
| 612 | Phase separation during co-deposition of Al–Ge thin films. Journal of Materials Research, 1992, 7, 653-666. | 1.2 | 44 |
| 613 | Self-organized pinning and interface growth in a random medium. Physical Review Letters, 1992, 69, 3539-3542. | 2.9 | 200 |
| 614 | Phase instability and local dynamics in directional solidification. Physical Review A, 1992, 46, 5026-5037. | 1.0 | 17 |
| 615 | Columnar growth and kinetic roughening in electrochemical deposition. Physical Review Letters, 1992, 68, 3741-3744. | 2.9 | 101 |
| 616 | Surface-tension-driven nonlinear instability in viscous fingers. Physical Review Letters, 1992, 69, 1520-1523. | 2.9 | 19 |
| 617 | Dynamics of banded structure formation in rapid solidification. Physical Review Letters, 1992, 68, 2616-2619. | 2.9 | 53 |
| 618 | Nonlinear dynamics in periodically repeated sets of directional solidification cells. Physical Review B, 1992, 45, 9562-9575. | 1.1 | 6 |
| 619 | Pressureâ€ŧemperature effects in planar Stefan problems with density change. Journal of Applied Physics, 1992, 71, 1128-1137. | 1.1 | 17 |
| 620 | Monte Carlo lattice-gas simulations of stable and unstable interfaces. Physical Review A, 1992, 45, 1024-1034. | 1.0 | 12 |
| 621 | Observation of front propagation in directional solidification. Physical Review A, 1992, 45, 8719-8726. | 1.0 | 3 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 622 | Coupled map lattice techniques for simulating interfacial phenomena in reactionâ€diffusion systems. Chaos, 1992, 2, 337-342. | 1.0 | 9 |
| 623 | Effect of scanning speed on the stability of the solidification interface during zoneâ€melting recrystallization of thin silicon films. Journal of Applied Physics, 1992, 72, 316-318. | 1.1 | 8 |
| 624 | Pulsatile- and cellular-mode interaction in rapid directional solidification. Physical Review B, 1992, 45, 7002-7016. | 1.1 | 15 |
| 625 | Singular behavior of the neutral modes during directional solidification. Physical Review A, 1992, 46, 6568-6578. | 1.0 | 2 |
| 626 | Saltâ€finger instability in an anisotropic and inhomogeneous porous substrate underlying a fluid layer. Journal of Applied Physics, 1992, 71, 5222-5236. | 1.1 | 26 |
| 627 | On dynamic excitation of Marangoni instability. Physics of Fluids A, Fluid Dynamics, 1992, 4, 2394-2398. | 1.6 | 15 |
| 628 | Modelling Growth Morphologies on Different Length Scales. Materials Research Society Symposia Proceedings, 1992, 278, 269. | 0.1 | 0 |
| 629 | Free Boundary Problems in Geochemistry. , 1992, , 1-34. | | 2 |
| 630 | Spontaneous evolution of spatiotemporal patterns in materials. Reports on Progress in Physics, 1992, 55, 723-795. | 8.1 | 65 |
| 631 | Crystal growth at long times: Critical behavior at the crossover from diffusion to kinetics-limited regimes. Physical Review A, 1992, 45, 2399-2415. | 1.0 | 67 |
| 632 | An interface tracking method applied to morphological evolution during phase change. , 1992, , . | | 1 |
| 633 | Threshold experiments performed in a slow rotating centrifuge microscope (NIZEMI). , 1992, , . | | 0 |
| 634 | Morphological stability of growing particles and maximum growth rate principle. Journal of Applied Physics, 1992, 71, 4809-4813. | 1.1 | 7 |
| 635 | Pulsatile Instability in Rapid Directional Solidification: Strongly-Nonlinear Analysis. SIAM Journal on Applied Mathematics, 1992, 52, 1279-1302. | 0.8 | 20 |
| 636 | Numerical Simulations of Unsteady Crystal Growth. SIAM Journal on Applied Mathematics, 1992, 52, 1303-1320. | 0.8 | 35 |
| 637 | About the banded structure in rapidly solidified dendritic and eutectic alloys. Acta Metallurgica Et Materialia, 1992, 40, 983-996. | 1.9 | 168 |
| 638 | Solidification behavior of superalloy in 939 in melt spinning. Acta Metallurgica Et Materialia, 1992, 40, 251-257. | 1.9 | 9 |
| 639 | The effect of compositionally-generated elastic stresses on morphological instability during directional solidification. Acta Metallurgica Et Materialia, 1992, 40, 1599-1616. | 1.9 | 27 |
ARTICLE IF CITATIONS # Rapid solidification processing with specific application to aluminium alloys. International Materials 640 9.4 290 Reviews, 1992, 37, 1-44. Directional solidification of Ni3Al. Acta Metallurgica Et Materialia, 1992, 40, 637-647. 641 1.9 Morphology of NiFe2O4 precipitation in NiO. Acta Metallurgica Et Materialia, 1992, 40, 1051-1067. 1.9 642 14 Parameters of melting dendrites in NaCl. Acta Metallurgica Et Materialia, 1992, 40, 513-517. 643 1.9 Planar to cellular transition during solidification in ternary systems. Scripta Metallurgica Et 644 1.0 1 Materialia, 1992, 26, 1157-1161. Cellular instability in rapid directional solidification: Bifurcation theory. Acta Metallurgica Et Materialia, 1992, 40, 2617-2628. 646 Melting and dissolving. Journal of Fluid Mechanics, 1992, 239, 429. 1.4 58 Dynamic growth of martensitic plates in an elastic material. Journal of Elasticity, 1992, 28, 143-164. 647 Morphological instabilities during rapid growth of metamorphic garnets. Physics and Chemistry of 648 0.3 60 Minerals, 1992, 19, 176. Production of Al-(12?25) wt% Si alloys by rapid solidification: melt spinning versus centrifugal 649 1.7 atomization. Journal of Materials Science, 1992, 27, 3539-3551. Stability of a two-phase process involving a planar phase boundary in a thermoelastic solid. 650 1.4 11 Continuum Mechanics and Thermodynamics, 1992, 4, 59-79. Geometrical approach to the morphogenesis of unicellular algae. Journal of Theoretical Biology, 0.8 1992, 156, 197-214. Peculiar Morphology in Some Phase-Separated Multicomponent Silicate Glasses. Journal of the 652 1.9 6 American Ceramic Society, 1992, 75, 1276-1777. Formation of Al2O3/Metal Composites by the Directed Oxidation of Molten Aluminum-Magnesium-Silicon Alloys: Part II, Growth Kinetics. Journal of the American Ceramic Society, 1.9 1992, 75, 455-462. Numerical modeling of macro and micro behaviors of materials in processing: A review. Journal of 654 10 1.9 Computational Physics, 1992, 102, 1-17. Adaptive self-organization during growth of bacterial colonies. Physica A: Statistical Mechanics and 1.2 154 Its Applications, 1992, 187, 378-424. Phase separation by directional quenching and morphological transition. Physica A: Statistical 656 1.2 33 Mechanics and Its Applications, 1992, 180, 128-155. Crystal growth and dendritic solidification. Journal of Computational Physics, 1992, 98, 231-253. 248

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 658 | A numerical analysis of dendritic and cellular array growth: the spacing adjustment mechanisms. Journal of Crystal Growth, 1992, 123, 17-34. | 0.7 | 168 |
| 659 | Criteria for making uniform films by chemical vapor deposition. Journal of Crystal Growth, 1992, 118, 60-70. | 0.7 | 9 |
| 660 | Directional solidification: interface dynamics and weak remote flow. Journal of Crystal Growth, 1992, 118, 319-332. | 0.7 | 8 |
| 661 | In situ observations by synchrotron white beam X-ray topography of the solidification microstructures of an Al-0.73 wt% Cu alloy. Journal of Crystal Growth, 1992, 121, 315-321. | 0.7 | 12 |
| 662 | Spatiotemporal chaos near the onset of cellular growth during thin-film solidification of a binary alloy. Journal of Crystal Growth, 1992, 121, 536-542. | 0.7 | 16 |
| 663 | Some problems in metallurgical fluid mechanics. Fluid Dynamics Research, 1992, 10, 327-350. | 0.6 | 0 |
| 664 | Dendritic growth during directional solidification of hypoeutectic Fe-C-Si alloys. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1992, 23, 681-687. | 1.4 | 13 |
| 665 | Planar to equiaxed transition in the Presence of an External Wetting Surface. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1992, 23, 3361-3368. | 1.4 | 6 |
| 666 | Infiltration of fibrous preforms by a pure metal:. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1992, 23, 2291-2299. | 1.4 | 17 |
| 667 | Coriolis effects on the stability of plane-front solidification of dilute Pb-Sn binary alloys. Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science, 1992, 23, 73-80. | 0.5 | 1 |
| 668 | Planar to equiaxed transition in the presence of an external wetting surface. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1992, 23, 3361-3368. | 1.4 | 4 |
| 669 | Irreversible thermodynamics of phase change heat transfer: Basic principles and applications to latent heat storage. Open Systems and Information Dynamics, 1992, 1, 423-458. | 0.5 | 8 |
| 670 | On the diffusion-driven growth: The perturbed sphere problem revisited. European Physical Journal D, 1992, 42, 577-590. | 0.4 | 6 |
| 671 | Primary dendrite arm spacings and tip radii in directionally solidified Ni3Al. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1992, 152, 240-246. | 2.6 | 6 |
| 672 | Morphological instability of a thermophoretically growing deposit. Journal of Crystal Growth, 1992, 116, 105-126. | 0.7 | 4 |
| 673 | Morphological stability of a planar metal electrode during potentiostatic electrodeposition and electrodissolution. Electrochimica Acta, 1992, 37, 103-112. | 2.6 | 54 |
| 674 | Boundary-conforming mapping applied to computations of highly deformed solidification interfaces. International Journal for Numerical Methods in Fluids, 1992, 14, 981-1003. | 0.9 | 44 |
| 675 | The growing processes in diffusive and convective fields. Chemical Engineering Science, 1993, 48, 3713-3721. | 1.9 | 16 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 676 | Effect of rotation on fluid motion and channel formation during unidirectional solidification of a binary alloy. International Journal of Heat and Mass Transfer, 1993, 36, 489-505. | 2.5 | 45 |
| 677 | The binary alloy problem in an expanding domain: the microsegregation problem. International Journal of Heat and Mass Transfer, 1993, 36, 713-723. | 2.5 | 32 |
| 678 | Solution of free-boundary problems using finite-element/Newton methods and locally refined grids: Application to analysis of solidification microstructure. International Journal for Numerical Methods in Fluids, 1993, 16, 827-843. | 0.9 | 26 |
| 679 | Stability and surface morphology of films obtained by a chemical vapor deposition process. Thin Solid Films, 1993, 236, 281-286. | 0.8 | 3 |
| 680 | Le paradoxe de zenon d'elee. Solid State Communications, 1993, 87, 105-108. | 0.9 | 20 |
| 681 | Variational algorithms and pattern formation in dendritic solidification. Journal of Computational Physics, 1993, 106, 337-354. | 1.9 | 79 |
| 682 | Solidification front stability during zone-melting recrystallization of thin silicon films. Journal of Crystal Growth, 1993, 126, 275-284. | 0.7 | 5 |
| 683 | Nonlinear long-wave morphological instabilities in directional solidification system. Journal of Crystal Growth, 1993, 126, 447-456. | 0.7 | 2 |
| 684 | Initial front transients in directional solidification of thin samples of dilute alloys. Journal of Crystal Growth, 1993, 132, 377-388. | 0.7 | 45 |
| 685 | Interface dynamics and coupled growth in directional solidification in presence of bubbles. Journal of Crystal Growth, 1993, 134, 181-195. | 0.7 | 22 |
| 686 | Quantitative determination of the physical parameters relevant to the thin-film directional solidification of the CBr4-C2Cl6 eutectic alloy. Journal of Crystal Growth, 1993, 134, 353-368. | 0.7 | 50 |
| 687 | Thermal effects in rapid directional solidification: weakly-nonlinear analysis of oscillatory instabilities. Journal of Crystal Growth, 1993, 132, 141-165. | 0.7 | 6 |
| 688 | Role of instabilities in determination of the shapes of growing crystals. Journal of Crystal Growth, 1993, 128, 1-12. | 0.7 | 68 |
| 689 | Growth morphologies in diffusion fields. Journal of Crystal Growth, 1993, 128, 82-86. | 0.7 | 7 |
| 690 | Interfacial wave theory of dendritic growth from a binary mixture: A comparison with experiments. Journal of Crystal Growth, 1993, 129, 666-682. | 0.7 | 13 |
| 691 | Stress singularities along a cycloid rough surface. International Journal of Solids and Structures, 1993, 30, 2983-3012. | 1.3 | 113 |
| 692 | Monte Carlo simulation studies of dendritic instabilities with faceted tips. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 1993, 173, 89-92. | 2.6 | 1 |
| 693 | Thermoelectric magnetohydrodynamic effects on solidification of metallic alloys in the dendritic regime. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 1993, 173, 93-100. | 2.6 | 67 |

| # | Article | IF | Citations |
|-----|---|------|-----------|
| 694 | Laser rapid solidification of Alî—,Cu alloys: banded and plane front growth. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1993, 173, 335-338. | 2.6 | 21 |
| 695 | Experimental observations and theoretical studies on solidification processes in saline solutions. Experimental Thermal and Fluid Science, 1993, 6, 157-167. | 1.5 | 9 |
| 696 | Stability of a two-phase process in an elastic solid. Journal of Elasticity, 1993, 31, 163-187. | 0.9 | 9 |
| 697 | Microstructure and properties of aluminium tungsten oxide ceramics synthesized by a high power cw CO2 laser. Journal of Materials Science, 1993, 28, 6040-6049. | 1.7 | 1 |
| 698 | Surface-driven instability and enhanced relaxation in the dynamics of a nonequilibrium interface. Journal of Statistical Physics, 1993, 70, 1149-1174. | 0.5 | 21 |
| 699 | A model of solidification under microgravity conditions. European Physical Journal D, 1993, 43, 63-71. | 0.4 | 1 |
| 700 | Spontaneous evolution of microstructure in materials. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1993, 24, 1689-1721. | 1.4 | 12 |
| 702 | Pattern formation outside of equilibrium. Reviews of Modern Physics, 1993, 65, 851-1112. | 16.4 | 6,817 |
| 703 | Prediction of dendritic spacings in a directional-solidification experiment. Physical Review E, 1993, 47, 2702-2712. | 0.8 | 221 |
| 704 | A numerical solution of the coupled heat and mass transfer problem of non-planar solidification and melting of aqueous solutions. Heat and Mass Transfer, 1993, 28, 195-204. | 0.2 | 8 |
| 705 | Interface stability, growth and morphology of quasicrystals. Journal of Non-Crystalline Solids, 1993, 153-154, 513-518. | 1.5 | 2 |
| 706 | Competition between noise and determinism in step flow growth. Physical Review Letters, 1993, 71, 3810-3813. | 2.9 | 39 |
| 707 | Bifurcation Analysis of Cellular Interfaces in Unidirectional Solidification of a Dilute Binary Mixture. SIAM Journal on Applied Mathematics, 1993, 53, 78-95. | 0.8 | 6 |
| 708 | Theory of diffusion-limited growth. Physical Review E, 1993, 48, R4207-R4210. | 0.8 | 11 |
| 709 | From snowflake formation to growth of bacterial colonies. Contemporary Physics, 1993, 34, 247-273. | 0.8 | 124 |
| 710 | Growth conditions at the solidification front of multicomponent alloys. Scripta Metallurgica Et Materialia, 1993, 29, 759-764. | 1.0 | 10 |
| 711 | Thermal effects in rapid directional solidification: linear theory. Acta Metallurgica Et Materialia, 1993, 41, 2025-2043. | 1.9 | 54 |
| 712 | Cell root instabilities in thin film forced velocity solidification of oriented alloy crystals. Scripta Metallurgica Et Materialia, 1993, 28, 1023-1028. | 1.0 | 5 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 713 | Relationship between free and forced velocity or cellular dendrites. Scripta Metallurgica Et Materialia, 1993, 29, 801-806. | 1.0 | 10 |
| 714 | Rapidly solidified Alî—,Cu alloys—I. experimental determination of the microstructure selection map. Acta Metallurgica Et Materialia, 1993, 41, 3563-3573. | 1.9 | 99 |
| 715 | Rapid solidification by unstable combustion synthesis. Journal of Materials Research, 1993, 8, 2515-2523. | 1.2 | 35 |
| 716 | Microstructure evolution and its effect on tensile and fracture behaviour of Ti-Al-Nb α ₂ intermetallics. International Materials Reviews, 1993, 38, 79-101. | 9.4 | 35 |
| 717 | Growth of ferroelectric crystals from melt. Ferroelectrics, 1993, 142, 31-44. | 0.3 | 5 |
| 718 | Containerless processing in the study of metallic melts and their solidification. International Materials Reviews, 1993, 38, 273-347. | 9.4 | 314 |
| 719 | A modified Mullins–Sekerka stability analysis including surface energy effects. Journal of Applied Physics, 1993, 74, 2494-2500. | 1.1 | 5 |
| 720 | Orientation dependent interface mobilities in a kinetic mean field theory of freezing and melting. Journal of Chemical Physics, 1993, 99, 3998-4010. | 1.2 | 9 |
| 721 | Computer simulations of dense-branching patterns. Physical Review Letters, 1993, 71, 3311-3314. | 2.9 | 41 |
| 722 | Directional solidification in two and three dimensions. Physical Review Letters, 1993, 71, 3323-3326. | 2.9 | 40 |
| 723 | Experimental study of the planar-to-cellular transition during thin-film directional solidification: Observations of the long-time-scale dynamics of microstructure formation. Physical Review B, 1993, 47, 4937-4952. | 1.1 | 21 |
| 724 | Morphological instabilities ofCBr4crystals during growth from vapors. Physical Review E, 1993, 47, 3463-3466. | 0.8 | 3 |
| 725 | Directional growth of a smectic-A–smectic-Binterface lying along a forbidden orientation. Physical Review E, 1993, 47, 2654-2662. | 0.8 | 2 |
| 726 | Transient dynamics of a cellular front instability during directional solidification. Physical Review Letters, 1993, 71, 4397-4400. | 2.9 | 17 |
| 727 | Growth instability and pricking-fracture mechanism in smectic-Afocal-conic nucleation. Physical Review E, 1993, 47, 1144-1150. | 0.8 | 6 |
| 728 | Baryon number diffusion and shape instabilities in the quark-hadron phase transition for heavy-ion collisions and cosmology. Physical Review D, 1993, 47, 4303-4308. | 1.6 | 5 |
| 729 | Dendritic sidebranching with periodic localized perturbations: Directional solidification of pivalic acid–coumarin 152 mixtures. Physical Review E, 1993, 48, 489-499. | 0.8 | 41 |
| 730 | Statistical mechanics of Laplacian fractals. Physical Review Letters, 1993, 71, 2425-2428. | 2.9 | 8 |

ARTICLE IF CITATIONS # Fluctuations in solidification. Physical Review E, 1993, 48, 3441-3458. 731 0.8 79 Interface dynamics and banding in rapid solidification. Physical Review E, 1993, 47, 513-533. 0.8 Early-time regime for interfacial instabilities in a kinetic Ising model. Physical Review E, 1993, 48, 733 0.8 2 4592-4598. Morphology transitions in a mean-field model of diffusion-limited growth. Physical Review Letters, 734 2.9 1993, 71, 3838-3841. Phase-field and sharp-interface alloy models. Physical Review E, 1993, 48, 1897-1909. 735 0.8 165 Cellular structures in step-flow growth. Physical Review B, 1993, 48, 12193-12201. 1.1 737 Growth modes and models for smooth and rough surfaces. Physica Scripta, 1993, T49B, 593-598. 1.2 3 Asymptotic behavior of modulated Taylor–Couette flows with a crystalline inner cylinder. Physics of 1.6 Fluids A, Fluid Dynamics, 1993, 5, 1891-1903. A Comparative Study Between high and low Temperature Thermally Controlled Crystallization of thin 739 0.1 0 films. Materials Research Society Symposia Proceedings, 1993, 321, 627. Growth morphology of icosahedral Al–Mn–Pd single quasicrystals. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 740 38 1993, 68, 487-512. Relationship between Primary- and Secondary-dendrite Arm Spacing of C-Mn Steel Uni-directionally 741 0.6 15 Solidified in Steady State.. ISÍJ International, 1994, 34, 986-991. Introduction to Solidification of Metals (II). Tetsu-To-Hagane/Journal of the Iron and Steel Institute of 742 0.1 Japan, 1994, 80, N208-N221. Introduction to Solidification of Metals (III). Tetsu-To-Hagane/Journal of the Iron and Steel Institute 743 0.1 2 of Japan, 1994, 80, N266-N280. Phenomenological Modeling of Fusion Welding Processes. MRS Bulletin, 1994, 19, 29-35. 744 1.7 Phase Separation Dynamics in a Concentration Gradient. Europhysics Letters, 1994, 27, 291-297. 745 0.7 16 Anisotropic polydomain structure in a driven lattice gas with repulsive interaction. Physical Review E, 1994, 49, 299-304. 746 Continuum approach to diffusion-limited-aggregation type of growth. Physical Review E, 1994, 49, 747 0.8 13 R4795-R4798. Stable Growth and Kinetic Roughening in Electrochemical Deposition. Physical Review Letters, 1994, 748 72, 4025-4028.

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 749 | Nonlinear interface stability analysis of alloy solidification including effects of surface energy. Journal of Applied Physics, 1994, 76, 4863-4871. | 1.1 | 8 |
| 750 | Thermal parameters affecting low temperature zoneâ€melting recrystallization of films. Journal of Applied Physics, 1994, 75, 1771-1782. | 1.1 | 5 |
| 751 | Surface transformations on annealed GaAs(001). Physical Review B, 1994, 50, 18194-18199. | 1.1 | 31 |
| 752 | Long-time-scale dynamics observed in directional solidification of a binary alloy. Physical Review B, 1994, 49, 12724-12737. | 1.1 | 7 |
| 753 | Nonlinear morphological instabilities in directional solidification—an integral approximation. Journal of Applied Physics, 1994, 76, 2765-2772. | 1.1 | 10 |
| 754 | Oscillatory instabilities in directionally solidified eutectics. Physical Review B, 1994, 50, 9111-9117. | 1.1 | 5 |
| 755 | Instabilities and pattern formation in driven diffusive systems. Physical Review E, 1994, 49, 3508-3511. | 0.8 | 2 |
| 756 | Spontaneous Undulation of Equilibrium Interfaces with Positive Surface Stiffness. Physical Review Letters, 1994, 73, 2212-2215. | 2.9 | 4 |
| 757 | Directional solidification at high speed. I. Secondary instabilities. Physical Review E, 1994, 49, 5477-5494. | 0.8 | 33 |
| 758 | Stability and kinetics of step motion on crystal surfaces. Physical Review E, 1994, 49, 2601-2616. | 0.8 | 100 |
| 759 | Pattern formation in laser-induced melting. Physical Review E, 1994, 49, 2096-2114. | 0.8 | 12 |
| 760 | Morphological instability in phase-field models of solidification. Physical Review E, 1994, 49, 4336-4352. | 0.8 | 38 |
| 761 | Subcritical-supercritical bifurcation crossover in directional solidification. Physical Review E, 1994, 50, R4286-R4289. | 0.8 | 7 |
| 762 | Effect of density change on the stability of a planar phase interface. International Communications in Heat and Mass Transfer, 1994, 21, 605-614. | 2.9 | 2 |
| 763 | Decomposition of the supersaturated solid solution in a rapidly solidified hypereutectic Alî—,Cu alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 179-180, 327-333. | 2.6 | 1 |
| 764 | Solid solution of Cu in (Alî—,Cu)î—,SiCp metal matrix composites processed by spray atomization and codeposition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 179-180, 609-613. | 2.6 | 2 |
| 765 | Interfacial growth in driven Ginzburg-Landau models: Short and long-time dynamics. Journal of Statistical Physics, 1994, 74, 131-146. | 0.5 | 2 |
| 766 | Quantitative microstructure maps for restrained directional growth. Journal of Materials Science, 1994, 29, 473-477. | 1.7 | 8 |

ARTICLE IF CITATIONS Morphological instability on Bénard-Marangoni convection during solidification: single-component 767 2.5 2 system. International Journal of Heat and Mass Transfer, 1994, 37, 1935-1943. Controlling the morphology of CVD films. AICHE Journal, 1994, 40, 1032-1045. 768 1.8 Holotransformations of bacterial colonies and genome cybernetics. Physica A: Statistical Mechanics 769 1.2 66 and Its Applications, 1994, 202, 1-47. Growth instability of quasi two-dimensional crystals. Physica A: Statistical Mechanics and Its 1.2 Applications, 1994, 204, 616-624. Formation of phases and microstructures by rapid solidification processing: an update. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 771 2.6 13 179-180, 1-7. Non-equilibrium interface kinetics during rapid solidification. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 178, 167-170. 2.6 Effect of local solidification time on the dendrite-to-cell transition at high growth rates. Materials 773 Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 2.6 7 183, 233-238. Non-equilibrium solidification of undercooled metallic metls. Materials Science and Engineering 774 14.8 505 Reports, 1994, 12, 177-272. Fundamental studies on Bridgman growth of CdTe. Progress in Crystal Growth and Characterization 775 1.8 182 of Materials, 1994, 29, 275-381. On the interface stability of a neck propagating in a sheet reinforced with shape-memory fibers. Composites Part B: Engineering, 1994, 4, 271-277. Some general properties of stress-driven surface evolution in a heteroepitaxial thin film structure. 777 2.3 215 Journal of the Mechanics and Physics of Solids, 1994, 42, 741-772. Segregation and flow during the solidification of alloys. Journal of Crystal Growth, 1994, 139, 134-146. The influence of oscillatory and steady shears on interfacial stability during directional 779 0.7 22 solidification. Journal of Crystal Growth, 1994, 143, 317-333. Experimental investigation of convection during vertical Bridgman growth of dilute Al-Mg alloys. Journal of Crystal Growth, 1994, 141, 209-218. Kinetic self-stabilization of a stepped interface: binary alloy solidification. Journal of Crystal Growth, 781 0.7 19 1994, 141, 219-233. Diffusion in succinonitrile and pivalic acid based alloys. Journal of Crystal Growth, 1994, 142, 354-356. The nature of the planar instability and pattern selection mechanisms attending directional thin film 783 0.7 7 alloy solidification. Journal of Crystal Growth, 1994, 144, 335-345. Systematics of thin film cellular dendrites and the cell-to-dendrite transition in succinonitrile-salol, 784 succinonitrile-acetone and pivalic acid-ethanol. Journal of Crystal Growth, 1994, 140, 115-122.

| # | Article | IF | CITATIONS |
|-----|---|------|-----------|
| 785 | Morphological stability of a binary alloy during directional solidification: initial transient. Journal of Crystal Growth, 1994, 140, 139-147. | 0.7 | 22 |
| 786 | Pseudo-dendritic growth in lead molybdate single crystal by Czochralski technique. Journal of Crystal Growth, 1994, 140, 148-156. | 0.7 | 14 |
| 787 | The morphological stability of lateral growth in solid-solid phase transformation during thin-film interdiffusion in Al/Cu bimetal films. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1994, 25, 1613-1625. | 1.1 | 3 |
| 788 | The instability of a vaporization front in hot porous rock. Nature, 1994, 367, 450-453. | 13.7 | 30 |
| 789 | Mechanism of crystal dendrite formation in KNO3. Acta Crystallographica Section B: Structural Science, 1994, 50, 518-524. | 1.8 | 3 |
| 790 | Solidification microstructures: A conceptual approach. Acta Metallurgica Et Materialia, 1994, 42, 15-23. | 1.9 | 130 |
| 791 | Cellular and dendritic growth in rapidly solidified Alî—,Fe and Alî—,Cu alloys. Acta Metallurgica Et Materialia, 1994, 42, 1653-1660. | 1.9 | 44 |
| 792 | Dendritic islands in metal-on-metal epitaxy I. Shape transitions and diffusion at island edges. Surface Science, 1994, 314, L829-L834. | 0.8 | 69 |
| 793 | Dendritic islands in metal-on-metal epitaxy II. Coalescence and multilayer growth. Surface Science, 1994, 314, L835-L842. | 0.8 | 20 |
| 794 | Periodical structures on the surface of stainless steel melt. Surface Science, 1994, 320, L119-L122. | 0.8 | 1 |
| 795 | Instability of Planar Interfaces in Reaction-Diffusion Systems. SIAM Journal on Mathematical Analysis, 1994, 25, 99-134. | 0.9 | 20 |
| 796 | Secondary instabilities in the stabilized Kuramoto-Sivashinsky equation. Physical Review E, 1994, 49, 166-183. | 0.8 | 79 |
| 797 | Morphological instability of a planar oxide-alloy interface for inward oxide growth. Acta Metallurgica Et Materialia, 1994, 42, 579-588. | 1.9 | 13 |
| 798 | Cellular and dendritic solidification in succinonitrile — Water system. Scripta Metallurgica Et Materialia, 1994, 31, 461-466. | 1.0 | 9 |
| 799 | Solute trapping in aluminum alloys. Acta Metallurgica Et Materialia, 1994, 42, 3515-3525. | 1.9 | 97 |
| 800 | Addendum to "steady state thin film solidification as a well-posed Stefan problem― Scripta Metallurgica Et Materialia, 1994, 30, 185-190. | 1.0 | 2 |
| 801 | Dendritic growth. International Materials Reviews, 1994, 39, 49-74. | 9.4 | 418 |
| 802 | Germanium Partitioning and Interface Stability During Rapid Solidification of Gesi Alloys. Materials Research Society Symposia Proceedings, 1994, 354, 653. | 0.1 | 0 |

| # | Article | IF | Citations |
|-----|---|------|-----------|
| 803 | Curve Lengthening Equation and Its Solutions. Journal of the Physical Society of Japan, 1994, 63, 1311-1321. | 0.7 | 8 |
| 804 | Complex patterns in reactionâ€diffusion systems: A tale of two front instabilities. Chaos, 1994, 4, 477-484. | 1.0 | 119 |
| 805 | Instability of Moving Interfaces between Ionic Crystals KCl/AgCl. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1995, 99, 1-6. | 0.9 | 8 |
| 806 | Misfit Dislocations and Elastic Relaxation. Materials Research Society Symposia Proceedings, 1995, 399, 313. | 0.1 | 8 |
| 807 | Anisotropy Effect on Kuramoto-Sivashinsky Equation. Journal of the Physical Society of Japan, 1995, 64, 9-13. | 0.7 | 2 |
| 808 | On morphological instability during electrodeposition with a stagnant binary electrolyte. Electrochimica Acta, 1995, 40, 599-614. | 2.6 | 72 |
| 809 | Directional phase separation of a binary polymer mixture driven by a temperature gradient. Physica D: Nonlinear Phenomena, 1995, 84, 23-30. | 1.3 | 21 |
| 810 | Porous silicon: theoretical studies. Physics Reports, 1995, 263, 93-151. | 10.3 | 110 |
| 811 | The influence of interface kinetics on the morphological stability of directional solidification of metls. Physica B: Condensed Matter, 1995, 215, 305-317. | 1.3 | 2 |
| 812 | Structure and properties of rapidly solidified Mg-based Mgî—,Pr alloys. Journal of Materials Processing Technology, 1995, 48, 483-487. | 3.1 | 2 |
| 813 | The nature of configurational forces. Archive for Rational Mechanics and Analysis, 1995, 131, 67-100. | 1.1 | 275 |
| 814 | Convergence of the phase-field equations to the mullins-sekerka problem with kinetic undercooling. Archive for Rational Mechanics and Analysis, 1995, 131, 139-197. | 1.1 | 72 |
| 815 | Kinetic roughening phenomena, stochastic growth, directed polymers and all that. Aspects of multidisciplinary statistical mechanics. Physics Reports, 1995, 254, 215-414. | 10.3 | 1,289 |
| 816 | An intrinsic equation of interfacial motion for the solidification of a pure hypercooled melt. Physica D: Nonlinear Phenomena, 1995, 85, 348-374. | 1.3 | 26 |
| 817 | Cellular and dendritic solidification of Alî—,Li alloys during the D2-mission. Advances in Space Research, 1995, 16, 173-176. | 1.2 | 10 |
| 818 | Crystal growth of ZnSe from the melt. Materials Science and Engineering Reports, 1995, 15, 85-133. | 14.8 | 62 |
| 819 | Scaling procedure and finite volume computations of phase-change problems with convection. Engineering Analysis With Boundary Elements, 1995, 16, 123-147. | 2.0 | 1 |
| 820 | A boundary conforming grid generation system for interface tracking. Computers and Mathematics With Applications, 1995, 29, 1-17. | 1.4 | 5 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 821 | Kinetics of macrosteps under diffusion and thermal interactions in stagnant media. Journal of Crystal Growth, 1995, 147, 223-233. | 0.7 | 16 |
| 822 | Shear stabilization of morphological instability during directional solidification. Journal of Crystal Growth, 1995, 149, 253-265. | 0.7 | 32 |
| 823 | Nonequilibrium partitioning during rapid solidification of Siî—,As alloys. Journal of Crystal Growth, 1995, 148, 172-182. | 0.7 | 60 |
| 824 | Kinetic self-stabilization of a stepped interface: growth into a supercooled melt. Journal of Crystal Growth, 1995, 149, 120-130. | 0.7 | 19 |
| 825 | Measurement of the onset of two-dimensional cellular solidification in the succinonitrile—acetone binary alloy. Journal of Crystal Growth, 1995, 154, 205-210. | 0.7 | 0 |
| 826 | Modification of morphological stability by Soret diffusion. Journal of Crystal Growth, 1995, 147, 207-214. | 0.7 | 18 |
| 827 | Morphological pattern formation in pitting corrosion. Journal of Electroanalytical Chemistry, 1995, 396, 241-249. | 1.9 | 11 |
| 828 | Transport phenomena and growth modes of silver electrodeposits. Journal of Electroanalytical Chemistry, 1995, 396, 183-195. | 1.9 | 15 |
| 829 | Morphological stability of a propagating domain wall in two-dimensional ferroelastic transformations. International Journal of Solids and Structures, 1995, 32, 3393-3405. | 1.3 | 1 |
| 830 | Solid state reactions and morphology. Solid State Ionics, 1995, 75, 219-228. | 1.3 | 17 |
| 831 | Interactions between SiC fibers and a titanium alloy during infrared liquid infiltration. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1995, 26, 1885-1894. | 1.1 | 15 |
| 832 | Prediction versus Experimental Fact in the Formation of Rapidly Solidified Microstructure ISIJ International, 1995, 35, 751-756. | 0.6 | 9 |
| 834 | Effect of External Heat Extraction on Dendritic Growth into Undercooled Melts ISIJ International, 1995, 35, 611-617. | 0.6 | 25 |
| 835 | Stabilizing effect of elasticity is not enough to resolve discrepancies in observations concerning a moving nematic-isotropic interface. Physical Review E, 1995, 51, 2356-2362. | 0.8 | 12 |
| 836 | Coupling between elasticity in a nematic phase and front dynamics for a moving nematic-isotropic boundary. Physical Review E, 1995, 51, 1282-1290. | 0.8 | 9 |
| 837 | Interface instability in an electric field. Journal of Applied Physics, 1995, 78, 1669-1672. | 1.1 | 19 |
| 838 | A numerical model for the calculation of the growth velocity of nonisothermal parabolic dendrites. Journal of Applied Physics, 1995, 78, 4137-4143. | 1.1 | 8 |
| 839 | Weakly nonlinear morphological instability of a spherical crystal growing from a pure undercooled melt. Physical Review E, 1995, 51, 4608-4620. | 0.8 | 10 |

| # | Article | IF | CITATIONS |
|-----|---|------|-----------|
| 840 | Mean-field theory of the morphology transition in stochastic diffusion-limited growth. Physical Review E, 1995, 52, 5134-5141. | 0.8 | 7 |
| 841 | A phase field model of capillarity. Physics of Fluids, 1995, 7, 747-753. | 1.6 | 104 |
| 842 | Parity Breaking Bifurcation in Inhomogeneous Systems. Physical Review Letters, 1995, 74, 4839-4842. | 2.9 | 27 |
| 843 | Diffusion Limited Growth in Systems with Continuous Symmetry. Physical Review Letters, 1995, 75, 2168-2171. | 2.9 | 5 |
| 844 | Doping effects in zoneâ€melting recrystallization of silicon thin films. Journal of Applied Physics, 1995, 77, 6000-6005. | 1.1 | 1 |
| 845 | Morphological instability of crystals grown from thin aqueous solution films with a free surface. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1995, 71, 409-419. | 0.8 | 9 |
| 846 | Thermal evaluation of zone-melting recrystallization of thin-film structures over a wide range of melting points. Journal of Materials Research, 1995, 10, 877-884. | 1.2 | 0 |
| 847 | Computer Simulations of Bacterial-Colony Formation. Europhysics Letters, 1995, 30, 239-243. | 0.7 | 15 |
| 848 | On long-wave morphological instabilities in directional solidification. European Journal of Applied Mathematics, 1995, 6, 639-652. | 1.4 | 4 |
| 849 | A micromechanistic model of microstructure development during the combustion synthesis process. Journal of Materials Research, 1995, 10, 962-980. | 1.2 | 30 |
| 850 | STABILITY OF A PROPAGATING INTERPHASE BOUNDARY IN A THERMOPLASTIC MATERIAL. Journal of Thermal Stresses, 1995, 18, 621-634. | 1.1 | 0 |
| 851 | Preferred-pattern formation during the initial transient in cellular solidification. Acta Metallurgica Et Materialia, 1995, 43, 1271-1278. | 1.9 | 12 |
| 852 | Thin film forced velocity cells and cellular dendrites—I. Experiments. Acta Metallurgica Et Materialia, 1995, 43, 2891-2904. | 1.9 | 25 |
| 853 | Thin film forced velocity cells and cellular dendrites—II. Analysis of data. Acta Metallurgica Et Materialia, 1995, 43, 2905-2915. | 1.9 | 25 |
| 854 | Rapidly solidified Alî—,Cu alloys—II. Calculation of the microstructure selection map. Acta Metallurgica Et Materialia, 1995, 43, 139-151. | 1.9 | 11 |
| 855 | Physical processes in fusion welding. Reviews of Modern Physics, 1995, 67, 85-112. | 16.4 | 443 |
| 856 | Dynamics of viscous fingers and threshold instability. Physical Review E, 1995, 51, 4469-4478. | 0.8 | 14 |
| 857 | Melting and Solidification. Springer Series in Materials Science, 1995, , 68-114. | 0.4 | 4 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 858 | Germanium partitioning in silicon during rapid solidification. Journal of Applied Physics, 1995, 78, 1575-1582. | 1.1 | 73 |
| 859 | Porous silicon formation: Stability analysis of the silicon-electrolyte interface. Physical Review B, 1995, 52, 8323-8336. | 1.1 | 50 |
| 860 | Modeling of fundamental phenomena in welds. Modelling and Simulation in Materials Science and Engineering, 1995, 3, 265-288. | 0.8 | 71 |
| 861 | Nematic-Smectic B Interface. Equilibrium and Growth Properties. Molecular Crystals and Liquid Crystals, 1995, 261, 349-369. | 0.3 | 8 |
| 862 | Dynamics of differentiation in magma reservoirs. Journal of Geophysical Research, 1995, 100, 17615-17636. | 3.3 | 113 |
| 863 | Statistical mechanics of driven diffusive systems. Phase Transitions and Critical Phenomena, 1995, 17, 3-214. | 1.2 | 198 |
| 865 | Solidification of peritectic alloys. International Materials Reviews, 1996, 41, 129-164. | 9.4 | 289 |
| 866 | Microscale theory of surface tension. Physical Review E, 1996, 54, 6285-6290. | 0.8 | 54 |
| 867 | Cellular growth of a dilute binary alloy at high solidification velocities. Scripta Materialia, 1996, 35, 1217-1222. | 2.6 | 9 |
| 868 | Pattern selection with anisotropy during directional solidification. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1996, 354, 2915-2949. | 1.6 | 21 |
| 869 | The production of chemically stratified and adcumulate plutonic igneous rocks. Mineralogical Magazine, 1996, 60, 99-114. | 0.6 | 57 |
| 870 | Direct numerical simulations of flows with phase change. , 1996, , . | | 4 |
| 871 | A study of morphological stability during directional solidification of a Snâ^'Bi alloy in microgravity. , 1996, , 77-94. | | 6 |
| 872 | Marangoni convection and enhanced morphological stability in floatâ€zone traveling solvent crystal growth of LaB6. Journal of Applied Physics, 1996, 80, 6567-6569. | 1.1 | 5 |
| 873 | Real Time Microholography for In-Situ Concentration Measurements in the Vicinity of Growing Dendrites. Journal of Heat Transfer, 1996, 118, 249-255. | 1.2 | 3 |
| 874 | Nonlinear Three Dimensional Morphological Instability in Directional Solidification – An Integral Approximation. Journal of the Physical Society of Japan, 1996, 65, 2112-2121. | 0.7 | 0 |
| 875 | Effects of flow on morphological stability during directional solidification. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 583-593. | 1.1 | 16 |
| 876 | Numerical modeling of cellular/dendritic array growth: spacing and structure predictions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 611-623. | 1.1 | 394 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 877 | Banded solidification microstructures. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 625-634. | 1.1 | 73 |
| 878 | Interface attachment kinetics in alloy solidification. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 671-686. | 1.1 | 104 |
| 879 | Effects of shear flow and anisotropic kinetics on the morphological stability of a binary alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 687-694. | 1.1 | 12 |
| 880 | Macrosegregation during dendritic arrayed growth of hypoeutectic pb- sn alloys: Influence of primary arm spacing and mushy zone length. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 1353-1362. | 1.1 | 52 |
| 881 | Thermal effects on the morphological stability in a directional solidification system with remote flow. International Journal of Heat and Mass Transfer, 1996, 39, 3417-3423. | 2.5 | 1 |
| 882 | High powder CO2 and Ndî—YAG laser welding of wrought Inconel 718. Journal of Materials Processing Technology, 1996, 56, 333-345. | 3.1 | 67 |
| 883 | Direct observation of solidification microstructures around absolute stability. Acta Materialia, 1996, 44, 3643-3654. | 3.8 | 38 |
| 884 | Dynamical patterns in directional solidification. Physica D: Nonlinear Phenomena, 1996, 93, 23-51. | 1.3 | 9 |
| 885 | Instabilities in the growth of compact electrodeposits. Physica D: Nonlinear Phenomena, 1996, 96, 384-395. | 1.3 | 6 |
| 886 | Morphological instability of steps during crystal growth from solution flow. Journal of Crystal Growth, 1996, 158, 346-358. | 0.7 | 42 |
| 887 | Oscillations induced by purely diffusive processes in planar directional solidification from the melt. Journal of Crystal Growth, 1996, 158, 369-376. | 0.7 | 5 |
| 888 | Analysis of interrupted growth strategies for cadmium telluride in an unseeded vertical Bridgman system. Journal of Crystal Growth, 1996, 158, 459-470. | 0.7 | 45 |
| 889 | Planar-cellular instability at a growing nematic-isotropic interface. Journal of Crystal Growth, 1996, 166, 222-227. | 0.7 | 3 |
| 890 | Fractal to compact transition during growth of 2D Kossel crystal in vapor diffusion field. Journal of Crystal Growth, 1996, 160, 167-176. | 0.7 | 11 |
| 891 | Formation mechanism of side branches of dendritic ice crystals grown from vapor. Journal of Crystal Growth, 1996, 160, 162-166. | 0.7 | 8 |
| 892 | Growth stability in high temperature vapour growth. Journal of Crystal Growth, 1996, 162, 173-177. | 0.7 | 8 |
| 893 | SixGe1 â^' x single crystals grown by the RF-heated float zone technique. Journal of Crystal Growth, 1996, 163, 243-248. | 0.7 | 43 |
| 894 | Morphology investigation of Hg1 â^ xCdxTe liquid phase epitaxial films. Journal of Crystal Growth, 1996, 163, 348-352. | 0.7 | 3 |

| # | Article | IF | CITATIONS |
|--|--|---|--|
| 895 | Quantitative analysis of the influence of Peltier interface demarcation on directional solidification. Journal of Crystal Growth, 1996, 167, 277-284. | 0.7 | 12 |
| 896 | A morphological stability analysis of the growth interface during liquid phase electroepitaxy. Journal of Crystal Growth, 1996, 167, 305-319. | 0.7 | 5 |
| 897 | Measurements of the evolution of porosity in a mushy layer. Journal of Crystal Growth, 1996, 167, 285-291. | 0.7 | 3 |
| 898 | The effects of an applied electric field on the linear stability in the solidification of a dilute binary alloy. Journal of Crystal Growth, 1996, 165, 147-155. | 0.7 | 5 |
| 899 | Planar interface growth in SMA welding of Ti-stabilized austenitic stainless steel and carbon steel. Journal of Materials Science Letters, 1996, 15, 582-585. | 0.5 | 0 |
| 900 | Patterned ground formation and convection in porous media with a phase change. Continuum Mechanics and Thermodynamics, 1996, 8, 189-199. | 1.4 | 6 |
| 901 | Effects of local non-equilibrium solute diffusion on rapid solidification of alloys. Physica Status Solidi A, 1996, 156, 293-303. | 1.7 | 49 |
| 902 | Site-ordering effects on element partitioning during rapid solidification of alloys. Nature, 1996, 383, 150-152. | 13.7 | 27 |
| 903 | Remarks on the Evolution of Materials Science. MRS Bulletin, 1996, 21, 20-27. | 1.7 | 9 |
| | | | |
| 904 | Growth kinetics in a phase field model with continuous symmetry. Physical Review E, 1996, 54, 153-162. | 0.8 | 4 |
| 904 905 | Growth kinetics in a phase field model with continuous symmetry. Physical Review E, 1996, 54, 153-162. Morphological instabilities of a nonequilibrium nematic-isotropic interface. Physical Review E, 1996, 53, 2423-2435. | 0.8 | 4 |
| 904 905 906 | Growth kinetics in a phase field model with continuous symmetry. Physical Review E, 1996, 54, 153-162. Morphological instabilities of a nonequilibrium nematic-isotropic interface. Physical Review E, 1996, 53, 2423-2435. Interface proliferation and the growth of labyrinths in a reaction-diffusion system. Physical Review E, 1996, 53, 3933-3957. | 0.8 0.8 0.8 | 4 10 104 |
| 904 905 906 907 | Growth kinetics in a phase field model with continuous symmetry. Physical Review E, 1996, 54, 153-162. Morphological instabilities of a nonequilibrium nematic-isotropic interface. Physical Review E, 1996, 53, 2423-2435. Interface proliferation and the growth of labyrinths in a reaction-diffusion system. Physical Review E, 1996, 53, 3933-3957. Shape of the tip and the formation of sidebranches of xenon dendrites. Physical Review E, 1996, 54, 5309-5326. | 0.8 0.8 0.8 0.8 | 4 10 104 |
| 904 905 906 907 | Growth kinetics in a phase field model with continuous symmetry. Physical Review E, 1996, 54, 153-162.Morphological instabilities of a nonequilibrium nematic-isotropic interface. Physical Review E, 1996, 53, 2423-2435.Interface proliferation and the growth of labyrinths in a reaction-diffusion system. Physical Review E, 1996, 53, 3933-3957.Shape of the tip and the formation of sidebranches of xenon dendrites. Physical Review E, 1996, 54, 5309-5326.Computation of the dendritic operating state at large supercoolings by the phase field model. Physical Review E, 1996, 53, 3760-3776. | 0.8 0.8 0.8 0.8 | 4 10 104 104 72 |
| 904 905 906 907 908 | Growth kinetics in a phase field model with continuous symmetry. Physical Review E, 1996, 54, 153-162. Morphological instabilities of a nonequilibrium nematic-isotropic interface. Physical Review E, 1996, 53, 2423-2435. Interface proliferation and the growth of labyrinths in a reaction-diffusion system. Physical Review E, 1996, 53, 3933-3957. Shape of the tip and the formation of sidebranches of xenon dendrites. Physical Review E, 1996, 54, 5309-5326. Computation of the dendritic operating state at large supercoolings by the phase field model. Physical Review E, 1996, 53, 3760-3776. Morphological instability of the solid-liquid interface and the supersaturation gradient in crystal growth from a high-temperature solution. Physical Review E, 1996, 54, 6372-6380. | 0.8 0.8 0.8 0.8 0.8 0.8 | 4 10 104 104 72 3 |
| 904 905 906 907 908 909 910 | Growth kinetics in a phase field model with continuous symmetry. Physical Review E, 1996, 54, 153-162. Morphological instabilities of a nonequilibrium nematic-isotropic interface. Physical Review E, 1996, 53, 2423-2435. Interface proliferation and the growth of labyrinths in a reaction-diffusion system. Physical Review E, 1996, 53, 3933-3957. Shape of the tip and the formation of sidebranches of xenon dendrites. Physical Review E, 1996, 54, 5309-5326. Computation of the dendritic operating state at large supercoolings by the phase field model. Physical Review E, 1996, 53, 3760-3776. Morphological instability of the solid-liquid interface and the supersaturation gradient in crystal growth from a high-temperature solution. Physical Review E, 1996, 54, 6372-6380. Continuum model for the growth of interfaces. Physical Review E, 1996, 53, 759-778. | 0.8 0.8 0.8 0.8 0.8 0.8 | 4 10 104 104 72 3 |
| 904 905 906 907 908 909 910 911 | Growth kinetics in a phase field model with continuous symmetry. Physical Review E, 1996, 54, 153-162. Morphological instabilities of a nonequilibrium nematic-isotropic interface. Physical Review E, 1996, 53, 2423-2435. Interface proliferation and the growth of labyrinths in a reaction-diffusion system. Physical Review E, 1996, 53, 3933-3957. Shape of the tip and the formation of sidebranches of xenon dendrites. Physical Review E, 1996, 54, 5309-5326. Computation of the dendritic operating state at large supercoolings by the phase field model. Physical Review E, 1996, 53, 3760-3776. Morphological instability of the solid-liquid interface and the supersaturation gradient in crystal growth from a high-temperature solution. Physical Review E, 1996, 54, 6372-6380. Continuum model for the growth of interfaces. Physical Review E, 1996, 53, 759-778. Nonisothermal eutectic crystallization. Physical Review E, 1996, 54, 6476-6484. | 0.8 0.8 0.8 0.8 0.8 0.8 0.8 | 4 10 104 104 72 3 3 3 3 3 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 913 | Pattern-formation study of macroscopic dense branching morphology inBi0.69Al0.27Mn/SiO films. Physical Review B, 1996, 53, 13759-13766. | 1.1 | 10 |
| 914 | Morphological stability of a heterophase interface under electromigration conditions. Journal of Applied Physics, 1996, 79, 6834-6839. | 1.1 | 20 |
| 915 | Shear stabilization of a solidifying front: Weakly nonlinear analysis in a longâ€wave limit. Physics of Fluids, 1996, 8, 2319-2336. | 1.6 | 5 |
| 916 | A free boundary model for shape preserving dendritic growth at high undercooling. Journal of Applied Physics, 1996, 80, 4129-4136. | 1.1 | 6 |
| 917 | Strong Coupling between Diffusive and Elastic Instabilities in Directional Solidification. Physical Review Letters, 1996, 76, 3013-3016. | 2.9 | 17 |
| 918 | Solute trapping effects in planar isothermal solidification of dilute binary alloys. Physical Review E, 1996, 54, 588-598. | 0.8 | 5 |
| 919 | Evaporatively controlled growth of salt trees. Physical Review E, 1996, 53, 1994-1997. | 0.8 | 17 |
| 920 | Interfacial instability induced by external fluctuations. Physical Review E, 1996, 53, 1459-1464. | 0.8 | 2 |
| 921 | Dynamics of surface patterning in salt-crystal dissolution. Physical Review E, 1996, 53, R5572-R5575. | 0.8 | 5 |
| 922 | Front stability in mean-field models of diffusion-limited growth. Physical Review E, 1996, 53, 861-870. | 0.8 | 3 |
| 923 | Early stages of ramified growth in quasi-two-dimensional electrochemical deposition. Physical Review E, 1996, 53, R5561-R5564. | 0.8 | 15 |
| 924 | SOLIDIFICATION. , 1996, , 669-842. | | 33 |
| 925 | Porous Silicon from Hydrogenated Amorphous Silicon: Comparison with Crystalline Porous Silicon. Materials Research Society Symposia Proceedings, 1996, 452, 403. | 0.1 | 9 |
| 926 | PATTERN FORMATION IN SOLID FILM GROWTH DURING CVD. Chemical Engineering Communications, 1996, 152-153, 189-209. | 1.5 | 1 |
| 927 | Mesophase Growth. Partially Ordered Systems, 1996, , 257-289. | 6.5 | 2 |
| 928 | Modeling of Nonequilibrium Surface Melting and Resolidification for Pure Metals and Binary Alloys. Journal of Heat Transfer, 1996, 118, 944-951. | 1.2 | 23 |
| 929 | Computer simulation of neurite outgrowth. Europhysics Letters, 1996, 33, 569-574. | 0.7 | 9 |
| 930 | Spontaneous generation of discrete scale invariance in growth models. Physical Review E, 1997, 55, 6433-6447. | 0.8 | 62 |

| # | Article | IF | CITATIONS |
|---|---|---|--|
| 931 | A Crystalline Motion: Uniqueness and Geometric Properties. SIAM Journal on Applied Mathematics, 1997, 57, 53-72. | 0.8 | 17 |
| 932 | Three-dimensional cellular instabilities in directional solidification considering interfacial kinetics. Physical Review B, 1997, 55, 824-836. | 1.1 | 1 |
| 933 | Stationary, dynamical, and chaotic states of the two-dimensional damped Kuramoto-Sivashinsky equation. Physical Review E, 1997, 56, 2713-2721. | 0.8 | 56 |
| 934 | Dendritic growth in a mean-field lattice gas model. Physical Review E, 1997, 55, 45-57. | 0.8 | 18 |
| 935 | Grain refinement and the stability of dendrites growing into undercooled pure metals and alloys. Journal of Applied Physics, 1997, 82, 3783-3790. | 1.1 | 130 |
| 936 | Transition to spatiotemporal chaos in the damped Kuramoto-Sivashinsky equation. Physical Review E, 1997, 56, 1631-1634. | 0.8 | 28 |
| 937 | Surface Modes and Ordered Patterns during Spinodal Decomposition of anABvModel Alloy. Physical Review Letters, 1997, 78, 4970-4973. | 2.9 | 33 |
| 938 | Similarity law for the tilt angle of dendrites in directional solidification of non-axially-oriented crystals. Physical Review E, 1997, 56, 4479-4485. | 0.8 | 53 |
| 939 | Asymptotic analysis of a vertical Bridgman furnace at large Rayleigh number. Physics of Fluids, 1997, 9, 683-702. | 1.6 | 5 |
| | | | |
| 940 | Rapid solidification under local nonequilibrium conditions. Physical Review E, 1997, 55, 6845-6854. | 0.8 | 98 |
| 940 941 | Rapid solidification under local nonequilibrium conditions. Physical Review E, 1997, 55, 6845-6854. Diffusion-controlled growth of a solid cylinder into its undercoded melt:Instabilities and pattern formation studied with the phase-field model. Physical Review E, 1997, 55, 3087-3091. | 0.8 0.8 | 98 1 |
| 940 941 942 | Rapid solidification under local nonequilibrium conditions. Physical Review E, 1997, 55, 6845-6854. Diffusion-controlled growth of a solid cylinder into its undercoded melt:Instabilities and pattern formation studied with the phase-field model. Physical Review E, 1997, 55, 3087-3091. Soluble phase field model. Physical Review E, 1997, 56, 77-87. | 0.8 0.8 0.8 | 98 1 4 |
| 940 941 942 943 | Rapid solidification under local nonequilibrium conditions. Physical Review E, 1997, 55, 6845-6854. Diffusion-controlled growth of a solid cylinder into its undercoded melt:Instabilities and pattern formation studied with the phase-field model. Physical Review E, 1997, 55, 3087-3091. Soluble phase field model. Physical Review E, 1997, 56, 77-87. Subcritical Bifurcation from Planar to Cellular Interface in Al – 0.5 wt.% Cu Directionally Solidified. Materials Research Society Symposia Proceedings, 1997, 481, 21. | 0.8 0.8 0.8 0.1 | 98 1 4 3 |
| 940 941 942 943 | Rapid solidification under local nonequilibrium conditions. Physical Review E, 1997, 55, 6845-6854. Diffusion-controlled growth of a solid cylinder into its undercoded melt:Instabilities and pattern formation studied with the phase-field model. Physical Review E, 1997, 55, 3087-3091. Soluble phase field model. Physical Review E, 1997, 56, 77-87. Subcritical Bifurcation from Planar to Cellular Interface in Al – 0.5 wt.% Cu Directionally Solidified. Materials Research Society Symposia Proceedings, 1997, 481, 21. Solidification, Development of Solidification Microstructure Formation Theories Materia Japan, 1997, 36, 916-921. | 0.8 0.8 0.8 0.1 0.1 | 98 1 4 3 |
| 940 941 942 943 944 | Rapid solidification under local nonequilibrium conditions. Physical Review E, 1997, 55, 6845-6854. Diffusion-controlled growth of a solid cylinder into its undercoded melt:Instabilities and pattern formation studied with the phase-field model. Physical Review E, 1997, 55, 3087-3091. Soluble phase field model. Physical Review E, 1997, 56, 77-87. Subcritical Bifurcation from Planar to Cellular Interface in Al – 0.5 wt.% Cu Directionally Solidified. Materials Research Society Symposia Proceedings, 1997, 481, 21. Solidification, Development of Solidification Microstructure Formation Theories Materia Japan, 1997, 36, 916-921. Effect of Solidification Rate on the Microstructure of a Ni-Base Superalloy. Materials Transactions, JIM, 1997, 38, 1016-1021. | 0.8 0.8 0.1 0.1 0.9 | 98 1 4 3 1 5 |
| 940 941 942 943 944 945 | Rapid solidification under local nonequilibrium conditions. Physical Review E, 1997, 55, 6845-6854. Diffusion-controlled growth of a solid cylinder into its undercoded melt:Instabilities and pattern formation studied with the phase-field model. Physical Review E, 1997, 55, 3087-3091. Soluble phase field model. Physical Review E, 1997, 56, 77-87. Subcritical Bifurcation from Planar to Cellular Interface in Al && 0.5 wt.% Cu Directionally Solidified. Materials Research Society Symposia Proceedings, 1997, 481, 21. Solidification, Development of Solidification Microstructure Formation Theories Materia Japan, 1997, 36, 916-921. Effect of Solidification Rate on the Microstructure of a Ni-Base Superalloy. Materials Transactions, JM, 1997, 38, 1016-1021. Local nonequilibrium effect on undercooling in rapid solidification of alloys. Physical Review E, 1997, 55, 343-352. | 0.8 0.8 0.1 0.1 0.9 0.8 | 98 1 4 3 1 5 126 |
| 940 941 942 943 943 945 945 | Rapid solidification under local nonequilibrium conditions. Physical Review E, 1997, 55, 6845-6854. Diffusion-controlled growth of a solid cylinder into its undercoded melt:Instabilities and pattern formation studied with the phase-field model. Physical Review E, 1997, 55, 3087-3091. Soluble phase field model. Physical Review E, 1997, 56, 77-87. Subcritical Bifurcation from Planar to Cellular Interface in Al – 0.5 wt.% Cu Directionally Solidified. Materials Research Society Symposia Proceedings, 1997, 481, 21. Solidification, Development of Solidification Microstructure Formation Theories Materia Japan, 1997, 36, 916-921. Effect of Solidification Rate on the Microstructure of a Ni-Base Superalloy. Materials Transactions, JIM, 1997, 38, 1016-1021. Local nonequilibrium effect on undercooling in rapid solidification of alloys. Physical Review E, 1997, 55, 343-352. Natural Convection, Solute Trapping, and Channel Formation during Solidification of Saltwater. Journal of Physical Chemistry B, 1997, 101, 6132-6136. | 0.8 0.8 0.1 0.1 0.9 0.8 1.2 | 98 1 4 3 1 5 126 95 |

| # | Article | IF | CITATIONS |
|--|---|---|--|
| 949 | Unidirectional Freezing of Waste-Activated Sludge:Â The Presence of Sodium Chloride. Environmental Science & Technology, 1997, 31, 1512-1517. | 4.6 | 36 |
| 950 | Experimental determination of the stability diagram of a lamellar eutectic growth front. Physical Review E, 1997, 56, 780-796. | 0.8 | 133 |
| 951 | Simulation of morphological instabilities during diamond chemical vapor deposition. Diamond and Related Materials, 1997, 6, 1759-1771. | 1.8 | 7 |
| 952 | Surface diffusion growth and stability mechanism of BN nanotubes produced by laser beam heating under superhigh pressures. Applied Physics Letters, 1997, 71, 3522-3524. | 1.5 | 34 |
| 953 | Theory and simulation of crystal growth. Journal of Physics Condensed Matter, 1997, 9, 299-344. | 0.7 | 170 |
| 954 | FLUID MECHANICS OF SPIN CASTING OF METALS. Annual Review of Fluid Mechanics, 1997, 29, 373-397. | 10.8 | 54 |
| 955 | Pattern formation during electropolishing. Physical Review B, 1997, 56, 12608-12624. | 1.1 | 101 |
| 956 | Planar to cellular transition during directional solidification of Al-0.5 wt.% Cu. Scripta Materialia, 1997, 36, 439-445. | 2.6 | 6 |
| 957 | Comments on undercooling effects in microsegregation modelling. Scripta Materialia, 1997, 36, 687-692. | 2.6 | 13 |
| | | | |
| 958 | CONVECTION IN MUSHY LAYERS. Annual Review of Fluid Mechanics, 1997, 29, 91-122. | 10.8 | 260 |
| 958 959 | CONVECTION IN MUSHY LAYERS. Annual Review of Fluid Mechanics, 1997, 29, 91-122. Dendritic ice crystals with faceted tip growing from the vapor phase. Journal of Crystal Growth, 1997, 173, 189-193. | 10.8 0.7 | 260 11 |
| 958 959 960 | CONVECTION IN MUSHY LAYERS. Annual Review of Fluid Mechanics, 1997, 29, 91-122. Dendritic ice crystals with faceted tip growing from the vapor phase. Journal of Crystal Growth, 1997, 173, 189-193. Morphological instability and supersaturation threshold pull rates in float-zone traveling solvent crystal growth of LaB6. Journal of Crystal Growth, 1997, 177, 226-237. | 10.8 0.7 0.7 | 260 11 3 |
| 958 959 960 961 | CONVECTION IN MUSHY LAYERS. Annual Review of Fluid Mechanics, 1997, 29, 91-122. Dendritic ice crystals with faceted tip growing from the vapor phase. Journal of Crystal Growth, 1997, 173, 189-193. Morphological instability and supersaturation threshold pull rates in float-zone traveling solvent crystal growth of LaB6. Journal of Crystal Growth, 1997, 177, 226-237. Mathematical modeling of grown-in defects formation in Czochralski silicon. Journal of Crystal Growth, 1997, 180, 334-342. | 10.8 0.7 0.7 0.7 | 260 11 3 3 |
| 958 959 960 961 | CONVECTION IN MUSHY LAYERS. Annual Review of Fluid Mechanics, 1997, 29, 91-122. Dendritic ice crystals with faceted tip growing from the vapor phase. Journal of Crystal Growth, 1997, 173, 189-193. Morphological instability and supersaturation threshold pull rates in float-zone traveling solvent crystal growth of LaB6. Journal of Crystal Growth, 1997, 177, 226-237. Mathematical modeling of grown-in defects formation in Czochralski silicon. Journal of Crystal Growth, 1997, 180, 334-342. Influence of pulsed laser processing conditions on dendrite tip radius. Applied Surface Science, 1997, 109-110, 113-123. | 10.8 0.7 0.7 0.7 3.1 | 260 11 3 3 2 |
| 958 959 960 961 962 | CONVECTION IN MUSHY LAYERS. Annual Review of Fluid Mechanics, 1997, 29, 91-122.Dendritic ice crystals with faceted tip growing from the vapor phase. Journal of Crystal Growth, 1997, 173, 189-193.Morphological instability and supersaturation threshold pull rates in float-zone traveling solvent crystal growth of LaB6. Journal of Crystal Growth, 1997, 177, 226-237.Mathematical modeling of grown-in defects formation in Czochralski silicon. Journal of Crystal Growth, 1997, 180, 334-342.Influence of pulsed laser processing conditions on dendrite tip radius. Applied Surface Science, 1997, 109-110, 113-123.The stochastic stabilized Kuramoto-Sivashinsky equation: a model for compact electrodeposition growth. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 235, 464-468. | 10.8 0.7 0.7 0.7 3.1 | 260 11 3 3 2 8 |
| 958 959 960 961 962 963 964 | CONVECTION IN MUSHY LAYERS. Annual Review of Fluid Mechanics, 1997, 29, 91-122. Dendritic ice crystals with faceted tip growing from the vapor phase. Journal of Crystal Growth, 1997, 173, 189-193. Morphological instability and supersaturation threshold pull rates in float-zone traveling solvent crystal growth of LaB6. Journal of Crystal Growth, 1997, 177, 226-237. Mathematical modeling of grown-in defects formation in Czochralski silicon. Journal of Crystal Growth, 1997, 180, 334-342. Influence of pulsed laser processing conditions on dendrite tip radius. Applied Surface Science, 1997, 109-110, 113-123. The stochastic stabilized Kuramoto-Sivashinsky equation: a model for compact electrodeposition growth. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 235, 464-468. Directional solidification of NiAlCrFe alloy. Scripta Materialia, 1997, 37, 85-91. | 10.8 0.7 0.7 0.7 3.1 0.9 | 260 11 3 3 2 2 8 |
| 958 959 960 961 962 963 964 965 | CONVECTION IN MUSHY LAYERS. Annual Review of Fluid Mechanics, 1997, 29, 91-122. Dendritic ice crystals with faceted tip growing from the vapor phase. Journal of Crystal Growth, 1997, 173, 189-193. Morphological instability and supersaturation threshold pull rates in float-zone traveling solvent crystal growth of LaB6. Journal of Crystal Growth, 1997, 177, 226-237. Mathematical modeling of grown-in defects formation in Czochralski silicon. Journal of Crystal Growth, 1997, 180, 334-342. Influence of pulsed laser processing conditions on dendrite tip radius. Applied Surface Science, 1997, 109-110, 113-123. The stochastic stabilized Kuramoto-Sivashinsky equation: a model for compact electrodeposition growth. Physics Letters, Section A: General, Atomic and Solid State Physics, 1997, 235, 464-468. Directional solidification of NiAlCrFe alloy. Scripta Materialia, 1997, 37, 85-91. The Gibbs-Thomson effect during cellular and dendritic solidification. Scripta Materialia, 1997, 37, 955-962. | 10.8 0.7 0.7 0.7 3.1 0.9 2.6 2.6 | 260 11 3 3 3 2 2 8 8 19 |

| # | Article | IF | Citations |
|-----|---|-----|-----------|
| 967 | Nonlinear dynamics theory on the steady state interface pattern during solidification of a dilute binary alloy. Science in China Series D: Earth Sciences, 1997, 40, 192-198. | 0.9 | 3 |
| 968 | Diffusional breakdown of nickel protective coatings on copper substrate in silver-copper eutectic melts. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1997, 28, 969-977. | 1.1 | 12 |
| 969 | Microscopic investigation of sensitized Ni-base alloy 600 after laser surface melting. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1997, 28, 1223-1231. | 1.1 | 26 |
| 970 | Prediction of dendrite arm spacings in unsteady-and steady-state heat flow of unidirectionally solidified binary alloys. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1997, 28, 651-663. | 1.0 | 259 |
| 971 | On the solidification of dendritic arrays: An asymptotic theory for the directional solidification of slender needle crystals. Acta Materialia, 1997, 45, 1535-1549. | 3.8 | 12 |
| 972 | Strain visualization of the onset of morphological instability and defect formation in cellular solidification of a dilute Al_Cu alloy. Acta Materialia, 1997, 45, 2329-2338. | 3.8 | 19 |
| 973 | An interface-tracking numerical method for rapid planar solidification of binary alloys with application to microsegregation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 225, 47-58. | 2.6 | 20 |
| 974 | Rapid solidification and a finite velocity for the propagation of heat. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 226-228, 28-32. | 2.6 | 10 |
| 975 | In-situ observation of cellular growth under rapid solidification conditions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 226-228, 124-128. | 2.6 | 3 |
| 976 | A model for spontaneous grain refinement in alloy systems at low undercooling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 226-228, 804-808. | 2.6 | 5 |
| 977 | Spray forming of Zircaloy-4. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 237, 207-215. | 2.6 | 7 |
| 978 | Experimental constraints on nonequilibrium interface kinetic models. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 226-228, 255-260. | 2.6 | 6 |
| 979 | On the stability of rapid planar solidification during melt-substrate quenching. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 226-228, 1035-1038. | 2.6 | 11 |
| 980 | Crystallization in suspensions of hard spheres and turbidity. Physica A: Statistical Mechanics and Its Applications, 1997, 235, 194-203. | 1.2 | 7 |
| 981 | Early stages of branched growth in electroless deposition. Physica A: Statistical Mechanics and Its Applications, 1997, 239, 166-173. | 1.2 | 3 |
| 982 | Experimental study of morphological stability during different convection conditions. Acta Astronautica, 1997, 40, 407-414. | 1.7 | 2 |
| 983 | The Effect of Volume-Change-Induced Stresses on the Morphological Stability of the Interface Boundary in a Ternary Diffusion Couple. Physica Status Solidi (B): Basic Research, 1997, 201, 389-403. | 0.7 | 0 |
| 984 | A Simple Level Set Method for Solving Stefan Problems. Journal of Computational Physics, 1997, 135, 8-29. | 1.9 | 421 |

| # | Article | IF | CITATIONS |
|------|--|------|-----------|
| 985 | Rapid solidification within the framework of a hyperbolic conduction model. International Journal of Heat and Mass Transfer, 1997, 40, 4085-4094. | 2.5 | 29 |
| 986 | Assessment of mathematical models for the flow in directional solidification. Journal of Crystal Growth, 1997, 171, 601-613. | 0.7 | 14 |
| 987 | Interface instabilities on solidifying globulitic particles. Journal of Crystal Growth, 1997, 173, 182-188. | 0.7 | 11 |
| 988 | In situ observations of stress-induced defect formation at the solid—liquid interface. Journal of Crystal Growth, 1997, 173, 503-512. | 0.7 | 13 |
| 989 | Primary spacing selection of Cuî—,Mn alloy under laser rapid solidification condition. Journal of Crystal Growth, 1997, 181, 109-116. | 0.7 | 34 |
| 990 | In situ and real-time observation of the formation and dynamics of a cellular interface in a succinonitrile-0.5 wt% acetone alloy directionally solidified in a cylinder. Journal of Crystal Growth, 1997, 181, 117-132. | 0.7 | 61 |
| 991 | Initial transient solute redistribution during directional solidification with liquid flow. Journal of Crystal Growth, 1997, 182, 212-218. | 0.7 | 17 |
| 992 | Flow-induced changes of the morphological stability in directional solidification: localized morphologies. Journal of Crystal Growth, 1998, 186, 629-647. | 0.7 | 22 |
| 993 | Multiple similarity solutions for solidification and melting. Journal of Crystal Growth, 1998, 191, 573-585. | 0.7 | 29 |
| 994 | The influence of insoluble spherical particles on the stability of a planar solidifying interface. Journal of Crystal Growth, 1998, 191, 889-896. | 0.7 | 7 |
| 995 | Analytical modeling of solute redistribution during the initial unsteady unidirectional solidification of binary dilute alloys. Journal of Crystal Growth, 1998, 193, 271-284. | 0.7 | 16 |
| 996 | Planar to cellular transition in the system succinonitrile–acetone during directional solidification of a bulk sample. Journal of Crystal Growth, 1998, 193, 701-711. | 0.7 | 28 |
| 997 | Growth stability of zinc selenide bulk crystals from solutions. Journal of Crystal Growth, 1998, 184-185, 1048-1052. | 0.7 | 3 |
| 998 | Freckle formation in a solidifying binary alloy. Journal of Engineering Mathematics, 1998, 33, 175-200. | 0.6 | 13 |
| 999 | Fluctuation-induced diffusive instabilities. Nature, 1998, 394, 556-558. | 13.7 | 111 |
| 1000 | Time-reversal symmetry-breaking superconductivity in Sr2RuO4. Nature, 1998, 394, 558-561. | 13.7 | 964 |
| 1001 | Influence of local nonequilibrium on the rapid solidification of binary alloys. Technical Physics, 1998, 43, 307-313. | 0.2 | 20 |
| 1002 | Coherent Structures in Convection and Parametrically Driven Surface Wavesa. Annals of the New York Academy of Sciences, 1998, 848, 121-133. | 1.8 | 0 |

ARTICLE IF CITATIONS Measurement of interfacial undercooling in a dilute Pbâ€"Sn alloy near the regime of morphological 1003 0.7 10 instability. Journal of Crystal Growth, 1998, 193, 692-700. The effect of a shear flow on the morphological stability of a vicinal face: Growth from a supersaturated solution. Advances in Space Research, 1998, 22, 1153-1158. 1004 1.2 Studies of bacterial branching growth using reaction–diffusion models for colonial development. 1005 1.2 187 Physica A: Statistical Mechanics and Its Applications, 1998, 260, 510-554. 1006 Mode of Dendrite Growth in Undercooled Alloy Melts. Materials Research Bulletin, 1998, 33, 141-148. 2.7 34 Microstructure evolution of Cu–Mn alloy under laser rapid solidification conditions. Materials 1007 2.7 14 Research Bulletin, 1998, 33, 1621-1633. Analytical modeling of solute redistribution during the initial unsteady unidirectional solidification of binary dilute alloys: comparison with experiments. Scripta Materialia, 1998, 39, 985-989. 2.6 Effects of Zr on microstructure and mechanical properties of Al-Cu base ribbons spun by planar flow 1009 0.2 3 casting. Metals and Materials International, 1998, 4, 135-139. A free dendritic growth model accommodating curved phase boundaries and high peclet number conditions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1010 1.1 1998, 29, 3047-3056. Directional dendritic solidification of a composite slurry: Part I. Dendrite morphology. Metallurgical 1011 20 1.1 and Materials Transactions A: Physical Metallurgy and Materials Science, 1998, 29, 1319-1327. Primary spacing in directional solidification. Metallurgical and Materials Transactions A: Physical 1.1 Metallurgy and Materials Science, 1998, 29, 1113-1119. Primary spacing in directional solidification. Metallurgical and Materials Transactions A: Physical 1013 1.1 50 Metallurgy and Materials Science, 1998, 29, 1113-1119. Existence of Dendritic Crystal Growth with Stochastic Perturbations. Journal of Nonlinear Science, 1.0 1998, 8, 491-579. An Analysis of Phase-Field Alloys and Transition Layers. Archive for Rational Mechanics and Analysis, 1015 1.1 18 1998, 142, 293-329. Formation and coarsening of a nanodispersed microstructure in melt spun Al–Ni–Zr alloy. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 2.6 255, 107-116. An experimental study of the remelting of an Fe-C-Cr-Si-B overlay with a microbeam plasma arc. Surface 1017 2.2 16 and Coatings Technology, 1998, 99, 132-139. Quasistationary theory of pattern formation described by the one-dimensional Stefan problem. Physics Letters, Section A: General, Atomic and Solid State Physics, 1998, 244, 285-291. Small scale properties of the stochastic stabilized Kuramoto-Sivashinsky equation. Physica D: 1019 1.35 Nonlinear Phenomena, 1998, 113, 166-171. Effect of anisotropy on morphological instability in the freezing of a hypercooled melt. Physica D: 1.3 Nonlinear Phenomena, 1998, 116, 363-391.

| # | Article | IF | CITATIONS |
|------|--|------|-----------|
| 1021 | Three basic issues concerning interface dynamics in nonequilibrium pattern formation. Physics Reports, 1998, 301, 9-43. | 10.3 | 55 |
| 1022 | Dynamics and fluctuations during MBE on vicinal surfaces. I. Formalism and results of linear theory. Physical Review B, 1998, 58, 2259-2275. | 1.1 | 42 |
| 1023 | Experimental test of morphological stability theory for a planar interface during rapid solidification. Physical Review B, 1998, 58, 189-199. | 1.1 | 55 |
| 1024 | Molecular Dynamics Simulation of Zone Melting. International Journal of Modern Physics C, 1998, 09, 857-860. | 0.8 | 5 |
| 1025 | Oscillatory phenomena in directional solidification. Physical Review B, 1998, 58, 144-155. | 1.1 | 1 |
| 1026 | Heat diffusion and banding in rapid solidification. Physical Review E, 1998, 58, 6166-6172. | 0.8 | 12 |
| 1027 | Kinetically Driven Growth Instability in Stressed Solids. Physical Review Letters, 1998, 81, 1445-1448. | 2.9 | 81 |
| 1028 | Influence of nanoscale substrate curvature on growth kinetics and morphology of surface nuclei. Journal of Applied Physics, 1998, 84, 6673-6679. | 1.1 | 15 |
| 1029 | Grain refinement and growth instability in undercooled alloys at low undercooling. Journal of Applied Physics, 1998, 84, 4905-4910. | 1.1 | 21 |
| 1030 | Transition from dendritic to planar growth and banded structure formation in rapidly solidified alloys. Physical Review E, 1998, 58, 6101-6108. | 0.8 | 18 |
| 1031 | Anisotropy-driven dynamics of cellular fronts in directional solidification in thin samples. Physical Review E, 1998, 58, 3302-3315. | 0.8 | 53 |
| 1032 | Selection of doublet cellular patterns in directional solidification through spatially periodic perturbations. Physical Review E, 1998, 58, 7492-7506. | 0.8 | 52 |
| 1033 | Shapes of flux domains in the intermediate state of type-I superconductors. Physical Review B, 1998, 57, 3058-3072. | 1.1 | 50 |
| 1034 | Nonlinear stability analysis of the growth surface during diamond chemical vapor deposition. Journal of Applied Physics, 1998, 83, 6061-6071. | 1.1 | 4 |
| 1035 | Metastable State Selection in One-Dimensional Systems with a Time-Ramped Control Parameter. Physical Review Letters, 1998, 81, 18-21. | 2.9 | 18 |
| 1036 | Directional solidification under stress. Physical Review E, 1998, 58, 6027-6040. | 0.8 | 27 |
| 1037 | Localized Morphologies with Long-Scale Forcing. Physical Review Letters, 1998, 80, 4414-4417. | 2.9 | 0 |
| 1038 | Interface dynamics, instabilities, and solute bands in rapid directional solidification. Physical Review E, 1998, 58, 2071-2078. | 0.8 | 19 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1039 | Computational Modelling of Heat/Mass Transfer Near the Liquid-Solid Interface During Rapid Solidification of Binary Metal Alloys Under Laser Treatment. Canadian Metallurgical Quarterly, 1998, 37, 313-321. | 0.4 | 2 |
| 1040 | Evolution of dendritic patterns during alloy solidification: Onset of the initial instability. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 431-438. | 3.3 | 110 |
| 1042 | A numerical investigation of steady convection in mushy layers during the directional solidification of binary alloys. Journal of Fluid Mechanics, 1998, 356, 199-220. | 1.4 | 51 |
| 1043 | A microscopic model for solidification. Europhysics Letters, 1999, 47, 338-344. | 0.7 | 8 |
| 1044 | Simulation of solidification structures of binary alloys: a multi-particle diffusion-limited aggregation model with surface rearrangement. Modelling and Simulation in Materials Science and Engineering, 1999, 7, 233-252. | 0.8 | 12 |
| 1045 | Critical undercoolings for the formation of metastable phase and its morphologies solidified from undercooled Fe–Co melts. Journal of Materials Research, 1999, 14, 1679-1682. | 1.2 | 5 |
| 1046 | The Nature of Configurational Forces. , 1999, , 281-314. | | 8 |
| 1047 | Confinement effects in dendritic growth. Journal of Physics Condensed Matter, 1999, 11, 8981-8993. | 0.7 | 12 |
| 1048 | Surface roughness and morphology of Co-(Fe and Ni) binary alloy electrodeposits studied by atomic force microscopy. Journal Physics D: Applied Physics, 1999, 32, 2342-2353. | 1.3 | 22 |
| 1049 | Liquid Conservation and Nonlocal Interface Dynamics in Imbibition. Physical Review Letters, 1999, 83, 1628-1631. | 2.9 | 68 |
| 1050 | Velocity-jump instabilities in Hele-Shaw flow of associating polymer solutions. Physical Review E, 1999, 60, 4423-4430. | 0.8 | 13 |
| 1051 | Kinetic roughening in electrodissolution of copper. Physical Review E, 1999, 59, 5133-5136. | 0.8 | 13 |
| 1052 | Influence of uniaxial stress on the lamellar spacing of eutectics. Physical Review E, 1999, 59, 4298-4304. | 0.8 | 0 |
| 1053 | Steps, kinetic anisotropy, and long-wavelength instabilities in directional solidification. Physical Review E, 1999, 59, 5629-5640. | 0.8 | 0 |
| 1054 | Morphology transitions in diffusion- and kinetics-limited solidification of a liquid crystal. Physical Review E, 1999, 59, 4342-4352. | 0.8 | 27 |
| 1055 | Observation of Melting Instability in Highly Magnetized SolidH3e. Physical Review Letters, 1999, 83, 4598-4601. | 2.9 | 48 |
| 1056 | Aggregation and chimney formation during the solidification of ammonium chloride. Physical Review E, 1999, 60, 3063-3071. | 0.8 | 13 |
| 1057 | Experimental test of the Warren-Langer model in nematic-isotropic planar interfaces. Physical Review E, 1999, 59, 5542-5548. | 0.8 | 2 |

| | | CITATION R | EPORT | |
|------|---|-------------------------|-------|-----------|
| # | Article | | IF | CITATIONS |
| 1058 | Fingering instability in combustion: An extended view. Physical Review E, 1999, 60, 51 | 8-531. | 0.8 | 67 |
| 1059 | Time dependent interface stability during rapid solidification. Journal of Applied Physics 3682-3687. | s, 1999, 86, | 1.1 | 2 |
| 1060 | Molecular-dynamics simulation of directional growth of binary mixtures. Physical Revie 3408-3413. | w B, 1999, 59, | 1.1 | 11 |
| 1061 | Elastic Effects on the Kinetics of a Phase Transition. Physical Review Letters, 1999, 82, | 1506-1509. | 2.9 | 30 |
| 1062 | Dynamical renormalization group calculation of a two-phase sharp interface model. Ph E, 1999, 60, R6267-R6270. | ysical Review | 0.8 | 6 |
| 1063 | Effect of diatomic islands on step morphological stability of a terrace edge in molecula Thin Solid Films, 1999, 353, 174-181. | r beam epitaxy. | 0.8 | 1 |
| 1064 | Crystal morphology engineering in SiO2–Al2O3–MgO–K2O–Na2O–Fâ^' miœ Materialia, 1999, 47, 735-744. | ca glass-ceramics. Acta | 3.8 | 28 |
| 1065 | Morphological instability ofl´-ferrite/l³-austenite interphase boundary in low carbon ste Materialia, 1999, 47, 1523-1535. | els. Acta | 3.8 | 114 |
| 1066 | The role of structure in rupturing Newton-black soap films: dynamics of a molecular bil and Surfaces A: Physicochemical and Engineering Aspects, 1999, 149, 521-527. | ayer. Colloids | 2.3 | 14 |
| 1067 | Bridgman growth: Modelling and experiments. Progress in Crystal Growth and Charact Materials, 1999, 38, 133-159. | erization of | 1.8 | 29 |
| 1068 | Comments on â€~Solidification modes and microstructure of Fe–Cr alloys solidified a undercoolings'. Materials Science & Engineering A: Structural Materials: Prope Microstructure and Processing, 1999, 270, 267-269. | at different erties, | 2.6 | 2 |
| 1069 | Forces due to fluctuations in the anisotropic phase-field model of solidification. Physica Mechanics and Its Applications, 1999, 268, 283-290. | a A: Statistical | 1.2 | 22 |
| 1070 | Large-amplitude solutions to the Sivashinsky and Riley–Davis equations for direction Physica D: Nonlinear Phenomena, 1999, 127, 146-176. | al solidification. | 1.3 | 7 |
| 1071 | A class of nonlinear front evolution equations derived from geometry and conservatior Nonlinear Phenomena, 1999, 128, 87-100. | n. Physica D: | 1.3 | 21 |
| 1072 | Evolution of the sidebranch structure in free dendritic growth. Acta Materialia, 1999, 4 | .7, 2345-2356. | 3.8 | 35 |
| 1073 | Morphological instabilities in rapid directional solidifications under local nonequilibriun conditions. Journal of Crystal Growth, 1999, 200, 305-320. | n | 0.7 | 7 |
| 1074 | Coherent Solid-State Phase Transitions with Atomic Diffusion: A Thermomechanical Tre Journal of Statistical Physics, 1999, 95, 1361-1427. | eatment. | 0.5 | 57 |
| 1075 | Title is missing!. Journal of Materials Science Letters, 1999, 18, 1571-1573. | | 0.5 | 8 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1076 | SURFACE ROUGHENING OF HETEROEPITAXIAL THIN FILMS. Annual Review of Materials Research, 1999, 29, 173-209. | 5.5 | 239 |
| 1077 | Nonlinear equations on controlling interface patterns during solidification of a dilute binary alloy. Science in China Series D: Earth Sciences, 1999, 42, 60-70. | 0.9 | 1 |
| 1078 | Suppression of channel convection in solidifying Pb-Sn alloys via an applied magnetic field. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1999, 30, 1809-1815. | 1.1 | 23 |
| 1079 | Modeling Melt Convection in Phase-Field Simulations of Solidification. Journal of Computational Physics, 1999, 154, 468-496. | 1.9 | 545 |
| 1080 | Metallurgy of Quasicrystals. Springer Series in Solid-state Sciences, 1999, , 5-50. | 0.3 | 45 |
| 1081 | Edge Diffusion during Growth: The Kink Ehrlich-Schwoebel Effect and Resulting Instabilities. Physical Review Letters, 1999, 82, 3661-3664. | 2.9 | 169 |
| 1083 | Eutectic colony formation: A stability analysis. Physical Review E, 1999, 60, 6865-6889. | 0.8 | 62 |
| 1084 | Three–dimensional effects in directional solidification in Hele—Shaw cells. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1999, 455, 3589-3616. | 1.0 | 3 |
| 1085 | Pattern formation in solidification. Materials Science and Technology, 1999, 15, 9-14. | 0.8 | 15 |
| 1086 | Overview: Nonlinear dynamics related to polymeric systems. Chaos, 1999, 9, 255-259. | 1.0 | 33 |
| 1087 | Pattern selection during electropolishing due to double-layer effects. Chaos, 1999, 9, 62-77. | 1.0 | 48 |
| 1088 | Weld Fusion Zone Solidification. , 0, , 373-453. | | 2 |
| 1089 | Primary Dendrite Growth of Al–Cu Alloy Films between Solid Plates. Materials Transactions, JIM, 1999, 40, 248-253. | 0.9 | 1 |
| 1090 | Effects of Sulphur, Titanium and Zirconium on the Shape of Solid-Liquid Interface in Fe-C binary alloys. International Journal of Cast Metals Research, 2000, 12, 303-309. | 0.5 | 0 |
| 1091 | Macroscopic models for melting derived from averaging microscopic Stefan problems I: Simple geometries with kinetic undercooling or surface tension. European Journal of Applied Mathematics, 2000, 11, 153-169. | 1.4 | 16 |
| 1092 | Influence of external temperature field to period of eutectic pattern. Materials Research Society Symposia Proceedings, 2000, 620, 1. | 0.1 | 0 |
| 1093 | Convection in directionally solidifying alloys under inclined rotation. Journal of Fluid Mechanics, 2000, 412, 93-123. | 1.4 | 15 |
| 1094 | Microsegregation in Peltier interface demarcation. Journal of Crystal Growth, 2000, 216, 483-494. | 0.7 | 13 |

ARTICLE IF CITATIONS Solidification of aluminiumâ€"lithium alloys near the cell/dendrite transition-influence of solutal 1095 0.7 42 convection. Journal of Crystal Growth, 2000, 218, 419-433. Morphological instability due to double diffusive convection in directional solidification: the pit 1096 23 formation. Journal of Crystal Growth, 2000, 220, 619-630. Limits of constitutional undercooling and interfacial liquid compositions during steady-state 1097 directional solidification of binary alloys at various interface velocities. Journal of Crystal Growth, 2 0.7 2000, 208, 779-785. Time development of a solute diffusion field and morphological instability on a planar interface in the 1098 directional growth of ice crystals. Journal of Crystal Growth, 2000, 209, 167-174. Dynamic simulations of interface morphologies in free dendritic growth. Journal of Crystal Growth, 1099 0.7 3 2000, 211, 43-48. Electrochemical preparation of porous semiconductors: from phenomenology to understanding. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2000, 69-70, 1-10. 79 1.7 From constrained to unconstrained growth during directional solidification. Acta Materialia, 2000, 1101 3.8 166 48, 2483-2501. Solidification microstructures: recent developments, future directions. Acta Materialia, 2000, 48, 3.8 510 43-70. Instabilities in crystal growth by atomic or molecular beams. Physics Reports, 2000, 324, 271-404. 10.3 1103 257 Interferometric observation of the effects of gravity on the horizontal growth of ice crystals in a 1104 1.3 thin growth cell. Physica D: Nonlinear Phenomena, 2000, 147, 177-186. Oscillations of the crystallization front of adsorbed water. JETP Letters, 2000, 72, 4-6. 1105 2 0.4 Complete experimental test of kinetic models for rapid alloy solidification. Acta Materialia, 2000, 48, 1106 3.8 4797-4811. The microstructure of as-melt spun Al–7%Si–0.3%Mg alloy and its variation in continuous heat treatment. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure 1107 2.6 12 and Processing, 2000, 284, 77-83. A new treatment of interface condition in temperature field calculation during high energy beam processing of materials. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 292, 216-218. 1108 2.6 On cellular spacing selection of Cu-Mn alloy under ultra-high temperature gradient and rapid 1109 2.6 17 solidification condition. Scripta Materialia, 2000, 42, 543-548. Kinetic effect of crystal growth on the absolute stability of a planar interface in undercooled melts. Materials Research Bulletin, 2000, 35, 1775-1783. Title is missing!. Journal of Materials Science, 2000, 35, 3069-3075. 1111 1.7 9 Hardfacing of stainless steel with laser melted colmonoy. Journal of Materials Science, 2000, 35, 5691-5698.

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1113 | An integrated model for dendritic and planar interface growth and morphological transition in rapid solidification. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31, 735-746. | 1.1 | 14 |
| 1114 | Correlation between unsteady-state solidification conditions, dendrite spacings, and mechanical properties of Al-Cu alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31, 3167-3178. | 1.1 | 165 |
| 1115 | Solute segregation behavior in spray-atomized Pd-Rh-V(Co) powders. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2000, 31, 1843-1855. | 1.1 | 3 |
| 1116 | Thermodynamic-kinetic simulation of constrained dendrite growth in steels. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2000, 31, 365-379. | 1.0 | 33 |
| 1117 | A mathematical model of solidification dynamics of binary alloys. Japan Journal of Industrial and Applied Mathematics, 2000, 17, 43-58. | 0.5 | 2 |
| 1118 | Mullins-Sekerka motion of small droplets on a fixed boundary. Journal of Geometric Analysis, 2000, 10, 575-596. | 0.5 | 13 |
| 1119 | Experimental Study of the Transition from Constrained to Unconstrained Growth during Directional Solidification ISIJ International, 2000, 40, 971-979. | 0.6 | 64 |
| 1120 | The birth of a cusp in the two-dimensional, undercooled Stefan problem. Quarterly of Applied Mathematics, 2000, 58, 473-494. | 0.5 | 9 |
| 1121 | Nonequilibrium Planar Interface Model for Solidification of Semitransparent Radiating Materials. Journal of Thermophysics and Heat Transfer, 2000, 14, 297-304. | 0.9 | 13 |
| 1122 | A continuum model for non-dense growth. Journal of Physics Condensed Matter, 2000, 12, 3195-3217. | 0.7 | 3 |
| 1123 | Model for isothermal pattern formation of growing crystals in undercooled binary alloys. Modelling and Simulation in Materials Science and Engineering, 2000, 8, 67-79. | 0.8 | 9 |
| 1124 | Coarsening Kinetics with Elastic Effects. Physical Review Letters, 2000, 84, 4914-4917. | 2.9 | 14 |
| 1126 | Morphological instability of growth fronts due to stress-induced mobility variations. Applied Physics Letters, 2000, 77, 516-518. | 1.5 | 27 |
| 1127 | Growth and melting of the nematic phase: Sample thickness dependence of the Mullins-Sekerka instability. Physical Review E, 2000, 61, 3969-3976. | 0.8 | 7 |
| 1128 | Regular dendritic patterns induced by nonlocal time-periodic forcing. Physical Review E, 2000, 62, 7817-7827. | 0.8 | 28 |
| 1129 | Melting Process and Interface Instability of Highly Magnetized Solid3He: Role of the Magnetization Gradient. Physical Review Letters, 2000, 85, 1894-1897. | 2.9 | 8 |
| 1130 | Adiabatic hypercooling of binary melts. Physical Review E, 2000, 62, 3954-3957. | 0.8 | 0 |
| 1131 | Tiling the plane with noncongruent toric focal conic domains. Physical Review E, 2000, 62, 6739-6748. | 0.8 | 40 |

| | | REPORT | |
|------|--|-----------|----------------|
| # | ARTICLE Directional Solidification of Bi-Sn on USMP-4. Materials Science Forum, 2000, 329-330, 235-246. | IF 0.3 | CITATIONS 3 |
| 1133 | Structural characterisation and homoepitaxial growth on Cu(111). Surface Science, 2000, 459, 191-205. | 0.8 | 26 |
| 1134 | Triple-deck simulation of surface glaze ice accretion. , 2000, , . | | 10 |
| 1135 | Traveling waves, two-phase fingers, and eutectic colonies in thin-sample directional solidification of a ternary eutectic alloy. Physical Review E, 2000, 61, 3757-3770. | 0.8 | 63 |
| 1136 | Solidification phenomena of weld metals (1st report). Characteristic solidification morphologies, microstructures and solidification theory. Welding International, 2000, 14, 939-951. | 0.3 | 14 |
| 1137 | Dynamics of Interface Instabilities in Nonionic Lamellar Phases. Langmuir, 2000, 16, 3718-3726. | 1.6 | 76 |
| 1138 | Phase-field modeling of eutectic growth. Physical Review E, 2000, 61, 6705-6720. | 0.8 | 67 |
| 1139 | Electrochemistry of Solid Glassed. Schott Series on Glass and Glass Ceramics, 2001, , 35-268. | 0.7 | 1 |
| 1140 | Phase-field simulations of dendritic crystal growth in a forced flow. Physical Review E, 2001, 63, 061601. | 0.8 | 205 |
| 1141 | Non-liner dynamic coupled equations on controlling patterns of the solid/liquid interface. Science and Technology of Advanced Materials, 2001, 2, 321-323. | 2.8 | 0 |
| 1142 | Microstructure evolution in equiaxed dendritic growth. Science and Technology of Advanced Materials, 2001, 2, 117-126. | 2.8 | 17 |
| 1143 | Pattern formation in solidification. Science and Technology of Advanced Materials, 2001, 2, 147-155. | 2.8 | 34 |
| 1145 | Branching in Nature. , 2001, , . | | 27 |
| 1146 | Corner Formation for the Undercooled Stefan Problem. SIAM Journal on Applied Mathematics, 2001, 61, 1156-1201. | 0.8 | 1 |
| 1147 | Phase-field modeling of microstructural pattern formation during directional solidification of peritectic alloys without morphological instability. Physical Review E, 2001, 63, 031504. | 0.8 | 56 |
| 1148 | Probability distributions of line lattices in random media from the 1D Bose gas. Nuclear Physics B, 2001, 604, 479-510. | 0.9 | 18 |
| 1150 | High rate directional solidification and its application in single crystal superalloys. Science and Technology of Advanced Materials, 2001, 2, 197-204. | 2.8 | 44 |
| 1151 | The transition mode of dilute binary alloys during directional solidification near to the absolute stability limit. Science and Technology of Advanced Materials, 2001, 2, 209-212. | 2.8 | 3 |

| # | Article | IF | CITATIONS |
|--|---|---|---|
| 1152 | Microstructure development in the directionally solidified Al–4.0 wt% Cu alloy system. Science and Technology of Advanced Materials, 2001, 2, 309-320. | 2.8 | 44 |
| 1153 | Phase field model for three-dimensional dendritic growth with fluid flow. Physical Review E, 2001, 64, 041602. | 0.8 | 276 |
| 1154 | Instability Formation and Directional Dendritic Growth of Ice Studied by Optical Interferometry. Crystal Growth and Design, 2001, 1, 213-223. | 1.4 | 50 |
| 1155 | A versatile and modularizable micromachining process for the fabrication of thermal microsensors and microactuators. Journal of Micromechanics and Microengineering, 2001, 11, 623-629. | 1.5 | 14 |
| 1156 | Diffusion-controlled solidification of a ternary melt from a cooled boundary. Journal of Fluid Mechanics, 2001, 432, 201-217. | 1.4 | 38 |
| 1157 | Solidification and Solidification Structure Control of Weld Metals Yosetsu Gakkai Shi/Journal of the Japan Welding Society, 2001, 70, 579-595. | 0.0 | 2 |
| 1158 | Binary Substances. , 2001, , 42-61. | | 0 |
| 1159 | Disequilibrium. , 2001, , 162-214. | | Ο |
| 1160 | Dendrites. , 2001, , 215-254. | | 1 |
| | | | |
| 1161 | A Monte Carlo simulation of solidification structures of binary alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 2725-2742. | 0.8 | 8 |
| 1161 1162 | A Monte Carlo simulation of solidification structures of binary alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 2725-2742. Particle formation in the rapidly solidified zone of alloy 600 surface melted by a CO2 laser beam. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1248-1251. | 0.8 | 8 |
| 1161 1162 1163 | A Monte Carlo simulation of solidification structures of binary alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 2725-2742. Particle formation in the rapidly solidified zone of alloy 600 surface melted by a CO2 laser beam. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1248-1251. Effect of growth velocity on the growth temperature of the Al-AlxFe eutectic in Al-2.85Fe-0.12V alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1251-1253. | 0.8 | 8 3 5 |
| 1161 1162 1163 1164 | A Monte Carlo simulation of solidification structures of binary alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 2725-2742. Particle formation in the rapidly solidified zone of alloy 600 surface melted by a CO2 laser beam. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1248-1251. Effect of growth velocity on the growth temperature of the Al-AlxFe eutectic in Al-2.85Fe-0.12V alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1251-1253. A unified microscale-parameter approach to solidification-transport phenomena-based macrosegregation modeling for dendritic solidification: Part I. Mixture average-based analysis. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2001, 32, 1129-1141 | 0.8 1.1 1.1 1.0 | 8 3 5 18 |
| 1161 1162 1163 1164 1165 | A Monte Carlo simulation of solidification structures of binary alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 2725-2742. Particle formation in the rapidly solidified zone of alloy 600 surface melted by a CO2 laser beam. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1248-1251. Effect of growth velocity on the growth temperature of the Al-AlxFe eutectic in Al-2.85Fe-0.12V alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1251-1253. A unified microscale-parameter approach to solidification-transport phenomena-based macrosegregation modeling for dendritic solidification: Part I. Mixture average-based analysis. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2001, 32, 1129-1141. Nonlinear instability and dynamic bifurcation of a plane interface during solidification. Science in China Series D: Earth Sciences, 2001, 44, 507-521. | 0.8 1.1 1.1 1.0 0.9 | 8 3 5 18 0 |
| 1161 1162 1163 1164 1165 1166 | A Monte Carlo simulation of solidification structures of binary alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 2725-2742. Particle formation in the rapidly solidified zone of alloy 600 surface melted by a CO2 laser beam. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1248-1251. Effect of growth velocity on the growth temperature of the Al-AlxFe eutectic in Al-2.85Fe-0.12V alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1251-1253. A unified microscale-parameter approach to solidification-transport phenomena-based macrosegregation modeling for dendritic solidification: Part I. Mixture average-based analysis. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2001, 32, 1129-1141. Nonlinear instability and dynamic bifurcation of a plane interface during solidification. Science in China Series D: Earth Sciences, 2001, 44, 507-521. In situ observation and interferometric characterization of solid-liquid interface morphology in directionally growing transparent model systems. Journal of Microscopy, 2001, 203, 119-127. | 0.8 1.1 1.1 1.0 0.9 0.8 | 8 3 5 18 0 12 |
| 1161 1162 1163 1164 1165 1166 | A Monte Carlo simulation of solidification structures of binary alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 2725-2742. Particle formation in the rapidly solidified zone of alloy 600 surface melted by a CO2 laser beam. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1248-1251. Effect of growth velocity on the growth temperature of the Al-AlxFe eutectic in Al-2.85Fe-0.12V alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1251-1253. A unified microscale-parameter approach to solidification-transport phenomena-based macrosegregation modeling for dendritic solidification: Part I. Mixture average-based analysis. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2001, 32, 1129-1141. Nonlinear instability and dynamic bifurcation of a plane interface during solidification. Science in China Series D: Earth Sciences, 2001, 44, 507-521. In situ observation and interferometric characterization of solid-liquid interface morphology in directionally growing transparent model systems. Journal of Microscopy, 2001, 203, 119-127. Growth shape of isotactic polystyrene crystals in thin films. Polymer, 2001, 42, 7443-7447. | 0.8 1.1 1.1 1.0 0.9 0.8 1.8 | 8 3 5 18 0 12 176 |
| 1161 1162 1163 1164 1165 1166 1167 1168 | A Monte Carlo simulation of solidification structures of binary alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 2725-2742. Particle formation in the rapidly solidified zone of alloy 600 surface melted by a CO2 laser beam. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1248-1251. Effect of growth velocity on the growth temperature of the Al-AlxFe eutectic in Al-2.85Fe-0.12V alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2001, 32, 1251-1253. A unified microscale-parameter approach to solidification: Part I. Mixture average-based analysis. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2001, 32, 1129-1141. Nonlinear instability and dynamic bifurcation of a plane interface during solidification. Science in China Series D: Earth Sciences, 2001, 44, 507-521. In situ observation and interferometric characterization of solid-liquid interface morphology in directionally growing transparent model systems. Journal of Microscopy, 2001, 203, 119-127. Growth shape of isotactic polystyrene crystals in thin films. Polymer, 2001, 42, 7443-7447. Kinetics of surfactant dissolution. Current Opinion in Colloid and Interface Science, 2001, 6, 287-293. | 0.8 1.1 1.0 0.9 0.8 1.8 3.4 | 8 3 5 18 0 12 176 32 |

| | | Citation Report | | |
|------|--|--------------------------|-----|-----------|
| # | Article | | IF | CITATIONS |
| 1170 | Solidification with a quasiequilibrium two-phase zone. Acta Materialia, 2001, 49, 759-7 | '64. | 3.8 | 49 |
| 1171 | General concept for a stability analysis of a planar interface under rapid solidification c multi-component alloy systems. Materials Science & Engineering A: Structural Ma Properties, Microstructure and Processing, 2001, 304-306, 277-280. | onditions in terials: | 2.6 | 6 |
| 1173 | A Front-Tracking Method for the Computations of Multiphase Flow. Journal of Comput Physics, 2001, 169, 708-759. | ational | 1.9 | 1,744 |
| 1174 | Control of pore structure and size in freeze-dried collagen sponges. Journal of Biomedi Research Part B, 2001, 58, 352-357. | cal Materials | 3.0 | 357 |
| 1175 | Durable Micropatterns Obtained from Dissipative Structures in Liquid Crystals. ChemP 2, 691-694. | hysChem, 2001, | 1.0 | 12 |
| 1176 | Analytical and numerical solutions describing the inward solidification of a binary melt. Engineering Science, 2001, 56, 2357-2370. | Chemical | 1.9 | 21 |
| 1177 | Directional cellular growth of succinonitrile–0.075wt% acetone bulk samples. Journa Growth, 2001, 223, 265-276. | ıl of Crystal | 0.7 | 19 |
| 1178 | Morphological stability of a binary alloy: thermodiffusion and temperature-dependent o Journal of Crystal Growth, 2001, 223, 565-572. | diffusivity. | 0.7 | 16 |
| 1179 | Analysis of the Melting Process of Magnetized Solid 3He. Journal of Low Temperature I 124, 169-188. | Physics, 2001, | 0.6 | 3 |
| 1180 | Continuum Theory of Epitaxial Crystal Growth. I. Journal of Statistical Physics, 2001, 10 | 04, 221-253. | 0.5 | 29 |
| 1181 | Title is missing!. Journal of Russian Laser Research, 2001, 22, 268-293. | | 0.3 | 0 |
| 1182 | Computer simulations of the evolution of solidification microstructure in the LENSâ,,¢ fabrication process. Applied Surface Science, 2001, 183, 43-57. | rapid | 3.1 | 34 |
| 1183 | Theory of plane front and dendritic growth in multicomponent alloys. Acta Materialia, 2 4191-4203. | 2001, 49, | 3.8 | 56 |
| 1184 | The effect of concentrational supercooling on the morphological stability of self-simila solidification with a planar front. Doklady Physics, 2001, 46, 453-458. | | 0.2 | 5 |
| 1185 | Dendrite growth in undercooled DD3 single crystal superalloy. Materials Research Bulle 181-192. | etin, 2001, 36, | 2.7 | 6 |
| 1186 | High-energy transitions of shallow magnetodonors in a GaAs/Al0.3Ga0.7As multiple qu Journal of Physics Condensed Matter, 2001, 13, 9761-9772. | antum well. | 0.7 | 6 |
| 1187 | Electrochemistry of Glasses and Glass Melts, Including Glass Electrodes. Schott Series Glass Ceramics, 2001, , . | on Glass and | 0.7 | 26 |
| 1188 | Surface step dynamics. , 2001, , 78-99. | | | 2 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1189 | Craft Turned into Science. Pergamon Materials Series, 2001, , 343-389. | 0.2 | 0 |
| 1190 | Morphological stability analysis of directional solidification into an oscillatory fluid layer. Physics of Fluids, 2001, 13, 3599-3609. | 1.6 | 7 |
| 1191 | Electrochemically self-assembled ordered nanostructure arrays. , 2001, , 1-27. | | 5 |
| 1192 | Freeze-Thaw Treatment of Membrane Concentrates Derived from Kraft Pulp Mill Operations. Journal of Cold Regions Engineering - ASCE, 2001, 15, 69-90. | 0.5 | 13 |
| 1193 | Postnucleation surface transport-kinetical phenomena and morphological instability in film deposition from vapor. Journal of Applied Physics, 2001, 89, 2151-2159. | 1.1 | 4 |
| 1194 | Pattern formation in directional solidification under shear flow. I. Linear stability analysis and basic patterns. Physical Review E, 2001, 63, 066301. | 0.8 | 4 |
| 1195 | Laplacian growth of parallel needles: A Fokker-Planck equation approach. Physical Review E, 2001, 64, 041401. | 0.8 | 4 |
| 1196 | Self-Organized Dynamics on a Curved Growth Interface. Physical Review Letters, 2001, 87, 076101. | 2.9 | 17 |
| 1197 | Gaussian Grooves Propagating Across a Moving Curved Interface in Directional Solidification. Molecular Crystals and Liquid Crystals, 2001, 362, 243-253. | 0.3 | 0 |
| 1198 | Curvature effects in rapid alloy solidification. Physical Review E, 2001, 63, 041507. | 0.8 | 3 |
| 1199 | Pattern formation in directional solidification under shear flow. II. Morphologies and their characterization. Physical Review E, 2001, 63, 066302. | 0.8 | 5 |
| 1200 | Anomalous Capillary Length in Cellular Nematic-Isotropic Interfaces. Physical Review Letters, 2001, 86, 2577-2580. | 2.9 | 12 |
| 1201 | Alternating Tip Splitting in Directional Solidification. Physical Review Letters, 2001, 86, 4604-4607. | 2.9 | 62 |
| 1202 | Free growth and instability morphologies in directional melting of alloys. Physical Review E, 2002, 65, 051604. | 0.8 | 23 |
| 1203 | Growth pulsations in symmetric dendritic crystallization in thin polymer blend films. Physical Review E, 2002, 65, 051606. | 0.8 | 71 |
| 1204 | Surface instability of icicles. Physical Review E, 2002, 66, 041202. | 0.8 | 26 |
| 1205 | Surface effects in nucleation and growth of smectic-Bcrystals in thin samples. Physical Review E, 2002, 66, 051709. | 0.8 | 3 |
| 1206 | Dynamics of low anisotropy morphologies in directional solidification. Physical Review E, 2002, 66, 051604. | 0.8 | 49 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1207 | Morphology transitions at vicinal Cu surfaces based on entropic step-step interaction and diffusion along steps. Physical Review B, 2002, 65, . | 1.1 | 14 |
| 1208 | Calculation of alloy solid-liquid interfacial free energies from atomic-scale simulations. Physical Review B, 2002, 66, . | 1.1 | 130 |
| 1209 | Novel Pattern Forming Process Due to the Coupling of Convection and Phase Change. Physical Review Letters, 2002, 88, 235507. | 2.9 | 16 |
| 1210 | Morphological stabilization, destabilization, and open-end closure during carbon nanotube growth mediated by surface diffusion. Physical Review E, 2002, 66, 011601. | 0.8 | 36 |
| 1211 | Dynamical polygonization below the cellular-bifurcation threshold in thin-sample directional solidification. Physical Review B, 2002, 66, . | 1.1 | 13 |
| 1212 | Meandering instability of curved step edges on growth of a crystalline cone. Surface Science, 2002, 507-510, 305-310. | 0.8 | 3 |
| 1213 | Simulation of solidification structures of binary alloys. International Journal of Materials Research, 2002, 93, 459-467. | 0.8 | 5 |
| 1214 | Interface Instability of Diamond Crystals at High Temperature and High Pressure. Chinese Physics Letters, 2002, 19, 419-421. | 1.3 | 5 |
| 1215 | Atomic aspects in the epitaxial growth of metallic superlattices and nanostructures. Journal of Physics Condensed Matter, 2002, 14, R1063-R1097. | 0.7 | 41 |
| 1216 | Solidification and solidification structure control of weld metals. Welding International, 2002, 16, 347-365. | 0.3 | 10 |
| 1217 | Electrochemical formation of thin films of binary III-V compounds. , 2002, , 261-318. | | 0 |
| 1218 | Patterning mechanisms in subglacial carbonate dissolution and deposition. Journal of Glaciology, 2002, 48, 386-400. | 1.1 | 54 |
| 1219 | Growth Direction of Cellular and Dendritic Interface in a Constrained Growth Condition. Materials Transactions, 2002, 43, 1312-1317. | 0.4 | 24 |
| 1220 | Microstructure Simulation of Aluminum Alloy Using Parallel Computing Technique ISIJ International, 2002, 42, 702-707. | 0.6 | 20 |
| 1221 | Computer simulation on isothermal dendritic growth process of Al-Cu binary alloy using phase-field method Keikinzoku/Journal of Japan Institute of Light Metals, 2002, 52, 58-63. | 0.1 | 7 |
| 1222 | Mass Transport Driven by Atomic Relocations Under High Flux Ion Irradiation at Elevated Temperatures. Surface Engineering, 2002, 18, 182-187. | 1.1 | 3 |
| 1223 | Motion of Surfaces Coupled to Fluid Particles. Journal of the Physical Society of Japan, 2002, 71, 2389-2395. | 0.7 | 0 |
| 1224 | Convection Effects in Three-Dimensional Dendritic Growth. , 2002, , 197. | | 3 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1225 | Experimental study of Marangoni flows in molten and solidifying Sn and Sn-Bi layers heated from the side. EPJ Applied Physics, 2002, 18, 201-219. | 0.3 | 13 |
| 1226 | A FINITE-VOLUME SHARP INTERFACE SCHEME FOR DENDRITIC GROWTH SIMULATIONS: COMPARISON WITH MICROSCOPIC SOLVABILITY THEORY. Numerical Heat Transfer, Part B: Fundamentals, 2002, 42, 389-409. | 0.6 | 30 |
| 1227 | Quantitative Analysis of the Morphology of Macropores on Low-Doped p-Si. Journal of the Electrochemical Society, 2002, 149, C511. | 1.3 | 52 |
| 1229 | On the role of Ge in the growth of β-FeSi2 on silicon (100) surfaces. Applied Physics Letters, 2002, 81, 904-906. | 1.5 | 3 |
| 1230 | Curvature Instability in Passive Diffractive Resonators. Physical Review Letters, 2002, 89, 233901. | 2.9 | 15 |
| 1231 | Morphological Instability and Additive-Induced Stabilization in Electrodeposition. Physical Review Letters, 2002, 89, 215509. | 2.9 | 15 |
| 1232 | Steady-state chimneys in a mushy layer. Journal of Fluid Mechanics, 2002, 455, 387-411. | 1.4 | 44 |
| 1233 | Melt crystallization. , 2002, , 161-179. | | 19 |
| 1234 | Solidification and Melting. , 2002, , 623-701. | | 1 |
| 1235 | Nanoscale pore formation dynamics during aluminum anodization. Chaos, 2002, 12, 240-251. | 1.0 | 88 |
| 1236 | Pits, outgrowths, and inclusions as coated grain kinetic instabilities. Geochimica Et Cosmochimica Acta, 2002, 66, 3901-3912. | 1.6 | 3 |
| 1237 | Dependence of period of macrostructures on kinetic parameters under directed crystallization. Computational Materials Science, 2002, 24, 93-98. | 1.4 | 3 |
| 1238 | Some aspects of diamond crystal growth at high temperature and high pressure by TEM and SEM. Materials Letters, 2002, 55, 397-402. | 1.3 | 11 |
| 1239 | Finger Formation in Biofilm Layers. SIAM Journal on Applied Mathematics, 2002, 62, 853-869. | 0.8 | 120 |
| 1240 | Eutectic colony formation: A phase-field study. Physical Review E, 2002, 66, 061608. | 0.8 | 89 |
| 1242 | Current Researches on the Formation of Solidification Microstructure in Alloys. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2002, 88, 229-235. | 0.1 | 1 |
| 1243 | Formation of Chemical Gardens. Journal of Colloid and Interface Science, 2002, 256, 351-359. | 5.0 | 185 |
| 1244 | Microstructure of Y3Al5O12 garnet solidified from the melt undercooled beyond the hypercooling limit. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 2955-2961 | 1.1 | 3 |

ARTICLE IF CITATIONS # Segregation and morphological instability due to double-diffusive convection in rotational directional solidification. Metallurgical and Materials Transactions A: Physical Metallurgy and 1245 1.1 9 Materials Science, 2002, 33, 3011-3017. Statistical self-similarity in Rhines' concept of unique multiphase diffusion paths on the ternary gibbs' isotherm. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1246 1.1 2002, 33, 3357-3365. Solidification behavior of Sn-15 wt pct Pb alloy under a high shear rate and high intensity of turbulence during semisolid processing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 3511-3520. 1247 1.1 58 Massive transformation and absolute stability. Metallurgical and Materials Transactions A: Physical 1248 1.1 Metallurgy and Materials Science, 2002, 33, 2337-2345. Modeling dendritic structure and mechanical properties of Zn–Al alloys as a function of 1249 solidification conditions. Materials Science & amp; Engineering A: Structural Materials: Properties, 119 2.6 Microstructure and Processing, 2002, 325, 103-111. Mechanical deformation of dendrites by fluid flow during the solidification of undercooled melts. Acta Materialia, 2002, 50, 3743-3755. 1250 3.8 From micro- to nanometric scale patterning by Langmuir–Blodgett technique. Materials Science and 1251 3.8 9 Engineering C, 2002, 22, 177-181. Multi-scale computational modelling of solidification phenomena. Physics Reports, 2002, 365, 145-249. 10.3 28 Nitriding of an austenitic stainless steel in plasma torch at atmospheric pressure. Surface and 1253 2.2 7 Coatings Technology, 2002, 156, 219-224. Directional solidification of cellular arrays in a transparent organic alloy. Advances in Space 1254 1.2 Research, 2002, 29, 511-520. Irreversible thermodynamics and true thermal state dynamics in view of generalised solid-state 1255 12 1.2 reaction kinetics. Thermochimica Acta, 2002, 388, 427-439. Application of triple-deck theory to the prediction of glaze ice roughness formation on an airfoil 1.3 18 leading edge. Computers and Fluids, 2002, 31, 977-1014. Seebeck and resistance diagnostics in the ESA MSL facility for the ISS. Acta Astronautica, 2002, 51, 1257 1.7 0 243-253. Transverse thermal effects in directional solidification. Journal of Crystal Growth, 2002, 244, 108-122. 1258 Pulsed electron-beam melting of high-speed steel: structural phase transformations and wear 1259 2.2 62 resistance. Surface and Coatings Technology, 2002, 150, 188-198. Directional solidification of aluminium–copper alloys. Materials Science & amp; Engineering A: 303 Structural Materials: Properties, Microstructure and Processing, 2002, 327, 167-185. Linear stability analysis of the solidification of a supercooled liquid in a half-space. International 1261 2.57 Journal of Heat and Mass Transfer, 2002, 45, 4577-4587. Sharp-interface simulation of dendritic solidification of solutions. International Journal of Heat and 48 Mass Transfer, 2002, 45, 4793-4808.

| # | Article | IF | CITATIONS |
|------|---|------|-----------|
| 1263 | Simulation of crystal shape evolution in two dimensions. Journal of Crystal Growth, 2002, 235, 603-618. | 0.7 | 7 |
| 1264 | Applications of morphological stability theory. Journal of Crystal Growth, 2002, 237-239, 8-13. | 0.7 | 6 |
| 1265 | Transport-kinetical phenomena in nanotube growth. Journal of Crystal Growth, 2002, 237-239, 65-69. | 0.7 | 19 |
| 1266 | Simulation on the instability of a solid–liquid interface from a molar flux with a diffuse interface layer. Journal of Crystal Growth, 2002, 237-239, 174-177. | 0.7 | 1 |
| 1267 | Feedback control of morphological instability. Journal of Crystal Growth, 2002, 237-239, 178-180. | 0.7 | 4 |
| 1268 | Reversing radial segregation and suppressing morphological instability during vertical Bridgman crystal growth by rotation. Journal of Crystal Growth, 2002, 235, 619-625. | 0.7 | 6 |
| 1269 | Suppressing morphological instability via feedback control. Journal of Crystal Growth, 2002, 240, 292-304. | 0.7 | 8 |
| 1270 | High-velocity banding structure in the laser-resolidified hypoperitectic Ti47Al53 alloy. Journal of Crystal Growth, 2002, 240, 603-610. | 0.7 | 26 |
| 1271 | Transitions in the growth mode of branched silver electrodeposits under isothermal and non-isothermal ionic mass transfer kinetics. Journal of Electroanalytical Chemistry, 2002, 532, 255-268. | 1.9 | 15 |
| 1272 | Cellular interface in diamond crystals from a Fe–Ni–C system at high temperature and high pressure. Chemical Physics Letters, 2002, 360, 167-174. | 1.2 | 2 |
| 1273 | Phase field modeling of shallow cells during directional solidification of a binary alloy. Journal of Crystal Growth, 2002, 237-239, 138-143. | 0.7 | 33 |
| 1274 | Heat flow parameters affecting dendrite spacings during unsteady-state solidification of Sn-Pb and Al-Cu alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 995-1006. | 1.1 | 140 |
| 1275 | A new analytical approach to predict spacing selection in lamellar and rod eutectic systems. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 383-394. | 1.1 | 14 |
| 1276 | Numerical modeling of crystal growth and solidification experiments carried out under microgravity conditions. Crystal Research and Technology, 2003, 38, 726-733. | 0.6 | 13 |
| 1277 | Enhancing the Capacity of Static Layer Crystallization Using Mechanical Devices. Chemical Engineering and Technology, 2003, 26, 417-420. | 0.9 | 0 |
| 1278 | Front propagation into unstable states. Physics Reports, 2003, 386, 29-222. | 10.3 | 732 |
| 1279 | Modeling dendritic growth of a binary alloy. Journal of Computational Physics, 2003, 188, 434-461. | 1.9 | 40 |
| 1280 | Cellular arrays in binary alloys: from geometry to stability. Journal of Crystal Growth, 2003, 250, 100-106. | 0.7 | 13 |

| # | Article | IF | CITATIONS |
|------|--|------|-----------|
| 1281 | Efficient adaptive phase field simulation of directional solidification of a binary alloy. Journal of Crystal Growth, 2003, 250, 525-537. | 0.7 | 29 |
| 1282 | Preparation of the initial solid–liquid interface and melt in directional solidification. Journal of Crystal Growth, 2003, 253, 539-548. | 0.7 | 79 |
| 1283 | Kinetics of atomic rearrangement in the processes of crystal growth into undercooled melts. Journal of Crystal Growth, 2003, 253, 504-511. | 0.7 | 3 |
| 1284 | Effect of growth rate and composition on the primary spacing, the dendrite tip radius and mushy zone depth in the directionally solidified succinonitrile–Salol alloys. Journal of Crystal Growth, 2003, 255, 190-203. | 0.7 | 30 |
| 1285 | Wetting at polymer surfaces and interfaces. Progress in Polymer Science, 2003, 28, 261-302. | 11.8 | 392 |
| 1286 | Evaluation of the stability of free dendrites. Applications to water and succinonitrile. International Journal of Hydrogen Energy, 2003, 28, 69-75. | 3.8 | 4 |
| 1287 | Boundary layer correlation for dendrite tip growth with fluid flow. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 342, 44-50. | 2.6 | 56 |
| 1288 | Mechanical properties as a function of thermal parameters and microstructure of Zn–Al castings. Journal of Materials Processing Technology, 2003, 143-144, 703-709. | 3.1 | 59 |
| 1289 | A study of kinetically limited dendritic growth at high undercooling using phase-field techniques. Acta Materialia, 2003, 51, 1959-1969. | 3.8 | 18 |
| 1290 | Solidification velocity of undercooled Ni–Cu alloys. Acta Materialia, 2003, 51, 4307-4318. | 3.8 | 43 |
| 1291 | Atomistic and continuum modeling of dendritic solidification. Materials Science and Engineering Reports, 2003, 41, 121-163. | 14.8 | 381 |
| 1292 | Dependence of the structure period on the interface velocity upon eutectic solidification. Technical Physics, 2003, 48, 569-575. | 0.2 | 4 |
| 1293 | Quasi-steady-state modeling of dendritic growth. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 310, 383-388. | 0.9 | 2 |
| 1294 | Description of far-from-equilibrium processes by mean-field lattice gas models. Advances in Physics, 2003, 52, 523-638. | 35.9 | 85 |
| 1295 | Solidification and compositional convection of a ternary alloy. Journal of Fluid Mechanics, 2003, 497, 167-199. | 1.4 | 19 |
| 1296 | Instabilities in directional solidification under inclined rotation. Journal of Fluid Mechanics, 2003, 477, . | 1.4 | 3 |
| 1297 | Reactive dissolution instability driven by chemical diffusion with applications to harzburgite reactive dissolution. Geophysical Research Letters, 2003, 30, . | 1.5 | 8 |
| 1298 | Preliminaryin situand real-time study of directional solidification of metallic alloys by x-ray imaging techniques. Journal Physics D: Applied Physics, 2003, 36, A83-A86. | 1.3 | 55 |
| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1299 | Morphological instabilities in thin-film growth and etching. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, S110-S116. | 0.9 | 32 |
| 1300 | Nonlinear Dynamics in Surfactant Systems. ACS Symposium Series, 2003, , 226-235. | 0.5 | 2 |
| 1301 | Self-Organization of Hierarchy: Dissipative- Structure Assisted Self-Assembly of Metal Nanoparticles in Polymer Matrices. ACS Symposium Series, 2003, , 16-27. | 0.5 | 15 |
| 1302 | Analysis of Island Dynamics in Epitaxial Growth of Thin Films. Multiscale Modeling and Simulation, 2003, 1, 150-171. | 0.6 | 26 |
| 1303 | Non-equilibrium solidification of bulk undercooled Ni–P eutectic alloys. Journal of Crystal Growth, 2003, 256, 139-145. | 0.7 | 7 |
| 1304 | Morphological evolution of banding structures at high solidification velocity. Materials Letters, 2003, 57, 1091-1095. | 1.3 | 12 |
| 1305 | Solidification of the Earth's core. Geodynamic Series, 2003, , 105-127. | 0.1 | 10 |
| 1306 | Experiment Design for the Space Stations Experiment PEP. , 2003, , . | | 0 |
| 1307 | Level-Set Based Sharp Interface Method for Dendrite Solidification. , 2003, , . | | 0 |
| 1308 | A Mechanism for Brightening. Journal of the Electrochemical Society, 2003, 150, C591. | 1.3 | 35 |
| 1309 | Seaweed to Dendrite Transition in Directional Solidification. Physical Review Letters, 2003, 91, 155502. | 2.9 | 43 |
| 1310 | Is There a Glass Transition in Planar Vortex Systems?. Physical Review Letters, 2003, 90, 185701. | 2.9 | 6 |
| 1311 | Morphological Stability during Electrodeposition. Journal of the Electrochemical Society, 2003, 150, C699. | 1.3 | 16 |
| 1312 | Thermal Analysis on Planar Interface Stability in Solidification of Semitransparent Materials. Journal of Thermophysics and Heat Transfer, 2003, 17, 193-198. | 0.9 | 5 |
| 1313 | Ripples formed in the sputter erosion of Pd(111). Journal of Physics Condensed Matter, 2003, 15, L735-L742. | 0.7 | 4 |
| 1314 | A COMBINED ANALYTIC AND NUMERICAL METHOD FOR PREDICTING THE SOLID-LAYER GROWTH FROM MELT CRYSTALLIZATION. Numerical Heat Transfer; Part A: Applications, 2003, 44, 577-590. | 1.2 | 7 |
| 1315 | Stability of Numerical Simulations of Dendritic Solidification. JSME International Journal Series B, 2003, 46, 586-592. | 0.3 | 2 |
| 1316 | Dendritic growth mechanism and phase-field simulation of Al-Cu and Al-Zn alloy Keikinzoku/Journal of Japan Institute of Light Metals, 2003, 53, 67-73. | 0.1 | 5 |

| # | Article | IF | Citations |
|------|--|-----|-----------|
| 1317 | 自己組ç1"åŒ−ã®å®šç¾©ã«é−¢ã™ã,‹èºè«−. Materia Japan, 2003, 42, 448-452. | 0.1 | 1 |
| 1318 | Development of Irregular Interface Morphology During Unidirectional Solidification of Succinonitrile. , 2003, , 135. | | 1 |
| 1319 | Modeling Concepts for the Spherulitic Growth in Polymers and Composites. , 2003, , . | | 0 |
| 1320 | Mechanism of Oscillatory Electrodeposition of Zinc, Revealed by Microscopic Inspection of Dendritic Deposits during the Oscillation. Chemistry Letters, 2003, 32, 532-533. | 0.7 | 12 |
| 1321 | Thermodynamic and kinetic influences on the morphology of moving interfaces during solid state reactions. International Journal of Materials Research, 2004, 95, 247-251. | 0.8 | 2 |
| 1322 | Instability of the Delta-ferrite/austenite Interface in Low Carbon Steels: The Influence of Delta-ferrite Recovery Sub-structures. ISIJ International, 2004, 44, 414-421. | 0.6 | 33 |
| 1323 | Quantitative phase-field model of alloy solidification. Physical Review E, 2004, 70, 061604. | 0.8 | 616 |
| 1324 | Advection flow effects in the growth of a free dendrite. Physical Review E, 2004, 69, 022601. | 0.8 | 14 |
| 1325 | Retardation of ice growth in glass capillaries: Measurement of the critical capillary radius. Physical Review E, 2004, 69, 021611. | 0.8 | 3 |
| 1326 | Pressure effects for crystal growth in a closed system. Physical Review E, 2004, 70, 031602. | 0.8 | 5 |
| 1327 | Interfacial stability of electrodeposition of cuprous oxide films. Journal of Chemical Physics, 2004, 121, 9630-9638. | 1.2 | 4 |
| 1328 | Simulation of cellular-dendritic solidification structures of binary alloys in three-dimensional growth using a multiparticle diffusion-limited aggregation model. International Journal of Materials Research, 2004, 95, 1133-1141. | 0.8 | 1 |
| 1329 | A Nonlinear Instability Analysis of Crystallization Processes with a Two-Phase Zone. Journal of Metastable and Nanocrystalline Materials, 2004, 20-21, 468-475. | 0.1 | 5 |
| 1330 | Evolution of ZnO nanowires, nanorods, and nanosheets with an oxygen-assisted carbothermal reduction process. Materials Research Society Symposia Proceedings, 2004, 848, 486. | 0.1 | 0 |
| 1331 | STOCHASTIC PHASE-FIELD SIMULATIONS OF SYMMETRIC ALLOY SOLIDIFICATION. Fluctuation and Noise Letters, 2004, 04, L505-L510. | 1.0 | 2 |
| 1332 | Absolute Morphological Stability of the Self-Similar Solidification with a Planar Front. Journal of Metastable and Nanocrystalline Materials, 2004, 20-21, 476-481. | 0.1 | 3 |
| 1333 | A variational approach to cellular crystal growth. Crystallography Reports, 2004, 49, 1053-1055. | 0.1 | 3 |
| 1334 | Linear morphological stability analysis of the solid-liquid interface in rapid solidification of a binary system. Physical Review E, 2004, 69, 051608. | 0.8 | 66 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1335 | Double-diffusive convective modes and induced microstructure localisation during solidification of binary alloys. International Journal of Thermal Sciences, 2004, 43, 769-777. | 2.6 | 8 |
| 1336 | Morphology: from sharp interface to phase field models. Journal of Crystal Growth, 2004, 264, 530-540. | 0.7 | 63 |
| 1337 | A brief history of defect formation, segregation, faceting, and twinning in melt-grown semiconductors. Journal of Crystal Growth, 2004, 264, 550-564. | 0.7 | 103 |
| 1338 | Theory of cellular solidification and homogeneous nucleation from molar flux balance at a diffuse interface layer. Journal of Crystal Growth, 2004, 266, 289-296. | 0.7 | 1 |
| 1339 | Characterization of cell tip curvature in directional solidification. Journal of Crystal Growth, 2004, 268, 272-283. | 0.7 | 16 |
| 1340 | Thermally induced effects during initial stage of crystal growth from melts. Journal of Crystal Growth, 2004, 273, 320-328. | 0.7 | 4 |
| 1341 | Examination of CO2 laser-induced rapid solidification structures on magnesia partially stabilised zirconia and the effects thereof on wettability characteristics. Optics and Lasers in Engineering, 2004, 42, 355-374. | 2.0 | 13 |
| 1342 | Analysis of diffusive cellular patterns in directional solidification of bulk samples. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 239-246. | 1.1 | 11 |
| 1343 | Interaction of porosity with a planar solid/liquid interface. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 1525-1538. | 1.1 | 31 |
| 1344 | A comparison between growth morphology of "Eutectic―cells/dendrites and single-phase cells/dendrites. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 1632-1635. | 1.1 | 16 |
| 1345 | Widmanstäten ferrite plate formation in low-carbon steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 3701-3706. | 1.1 | 67 |
| 1346 | A Simple Index to Restrain Abnormal Protrusions in Films Fabricated Using CVD under Diffusion-Limited Conditions. Chemical Vapor Deposition, 2004, 10, 221-228. | 1.4 | 9 |
| 1347 | Microstructure development in alloy splats during rapid solidification. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 383, 175-183. | 2.6 | 3 |
| 1348 | Self-similar solidification: morphological stability of the regime. International Journal of Heat and Mass Transfer, 2004, 47, 1383-1389. | 2.5 | 55 |
| 1349 | Antimony-doped germanium single crystals grown from the melt by the axial heat processing (AHP) technique. Journal of Crystal Growth, 2004, 262, 581-593. | 0.7 | 15 |
| 1350 | Scaffolding and filling process: a new type of 2D crystal growth. Journal of Crystal Growth, 2004, 263, 237-242. | 0.7 | 36 |
| 1351 | Long-time scale morphological dynamics near the onset of instability during directional solidification of an alloy. Journal of Crystal Growth, 2004, 264, 379-384. | 0.7 | 16 |
| 1352 | Reversing radial segregation and suppressing morphological instability during Bridgman crystal growth by angular vibration. Journal of Crystal Growth, 2004, 271, 474-480. | 0.7 | 26 |

| # | | IE | CITATIONS |
|------|--|-----|-----------|
| # | Global feedback control of a long-wave morphological instability. Physica D: Nonlinear Phenomena. | 11 | CHAHONS |
| 1353 | 2004, 199, 61-81. | 1.3 | 21 |
| 1354 | A level set variational formulation for coupled phase change/mass transfer problems: application to freezing of biological systems. Finite Elements in Analysis and Design, 2004, 40, 1641-1663. | 1.7 | 11 |
| 1355 | Recent progress of crystal growth modeling and growth control. Chemical Engineering Science, 2004, 59, 1437-1457. | 1.9 | 85 |
| 1356 | On the formation of WidmanstÃ ¤ ten ferrite in binary Fe–C – phase-field approach. Acta Materialia, 2004, 52, 4055-4063. | 3.8 | 98 |
| 1357 | Ultrawide ZnO nanosheets. Journal of Materials Chemistry, 2004, 14, 35. | 6.7 | 175 |
| 1358 | Curvature induced periodic attractor on growth interface. Chaos, 2004, 14, 882-902. | 1.0 | 5 |
| 1359 | Viscous fingering as a paradigm of interfacial pattern formation: Recent results and new challenges. Chaos, 2004, 14, 809-824. | 1.0 | 135 |
| 1360 | A Study on the Morphological Stability of Faceted Interfaces in Antimony-Doped Germanium Single Crystals Grown by the Axial Heat Processing Method. Crystal Growth and Design, 2004, 4, 377-381. | 1.4 | 12 |
| 1361 | Kinetic roughening of electrodeposited films. Journal of Physics Condensed Matter, 2004, 16, R859-R880. | 0.7 | 66 |
| 1362 | Liquid Phase Epitaxy. Springer Series in Materials Science, 2004, , 63-80. | 0.4 | 2 |
| 1363 | Thermodynamic Aspects. Springer Series in Materials Science, 2004, , 267-320. | 0.4 | 0 |
| 1364 | The Effect of Interfacial Deformation on Electrodeposition Kinetics. Journal of the Electrochemical Society, 2004, 151, A880. | 1.3 | 310 |
| 1365 | Theory of Crystal Growth Morphology. , 2004, , 55-93. | | 11 |
| 1366 | Dendritic to Globular Morphology Transition in Ternary Alloy Solidification. Physical Review Letters, 2004, 93, 215501. | 2.9 | 28 |
| 1367 | The Advent of Solid-State Thermodynamics, Kinetics and Electrochemistry in the 20th Century. Zeitschrift Fur Physikalische Chemie, 2004, 218, 1385-1399. | 1.4 | 1 |
| 1368 | Phase-Field Simulations of Anisotropic Morphologies during Directional Solidification of a Binary Alloy. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2004, 70, 456-463. | 0.2 | 3 |
| 1369 | Directional solidification simulation of Al-Zn alloy by the phase field method. Keikinzoku/Journal of Japan Institute of Light Metals, 2004, 54, 100-104. | 0.1 | 4 |
| 1370 | Phase Field Simulation on Directional Solidification of Succinonitrile (SCN)–Acetone Organic Model Alloy. Materials Transactions, 2005, 46, 2003-2010. | 0.4 | 7 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1371 | Dendrite growth simulation of Al-Zn alloys by the phase field method. Keikinzoku/Journal of Japan Institute of Light Metals, 2005, 55, 2-8. | 0.1 | 2 |
| 1373 | Surface modification of Hastelloy C-276 by SiC addition and electron beam melting. Journal of Nuclear Materials, 2005, 336, 120-124. | 1.3 | 36 |
| 1374 | Renormalization and scaling methods for quasi-static interface problems. Nonlinear Analysis: Theory, Methods & Applications, 2005, 63, 812-822. | 0.6 | 2 |
| 1375 | Thermal stress inhibition in double crucible Czochralski large diameter crystal growth. Journal of Crystal Growth, 2005, 274, 307-316. | 0.7 | 8 |
| 1376 | Application of synchrotron X-ray imaging to the study of directional solidification of aluminium-based alloys. Journal of Crystal Growth, 2005, 275, 201-208. | 0.7 | 90 |
| 1377 | Tailoring of dendritic microstructure in solidification processing by crucible vibration. Journal of Crystal Growth, 2005, 275, e1579-e1584. | 0.7 | 8 |
| 1378 | Morphological stability during directional solidification into an oscillatory molten zone. Journal of Crystal Growth, 2005, 276, 289-298. | 0.7 | 3 |
| 1379 | Dependency of the dendritic arm spacings and tip radius on the growth rate and composition in the directionally solidified succinonitrile–carbon tetrabromide alloys. Journal of Crystal Growth, 2005, 276, 583-593. | 0.7 | 26 |
| 1380 | Nonlinear stability analysis of self-similar crystal growth: control of the Mullins–Sekerka instability. Journal of Crystal Growth, 2005, 277, 578-592. | 0.7 | 28 |
| 1381 | Morphological stability of a solid–liquid interface and cellular growth: Insights from thermoelectric measurements in microgravity experiments. Journal of Crystal Growth, 2005, 279, 195-205. | 0.7 | 13 |
| 1382 | Synthesis of ZnO nanowires and nanosheets by an O2-assisted carbothermal reduction process. Journal of Crystal Growth, 2005, 280, 161-167. | 0.7 | 57 |
| 1383 | Directional solidification of Al–1.5wt% Ni alloys under diffusion transport in space and fluid-flow localisation on earth. Journal of Crystal Growth, 2005, 281, 654-668. | 0.7 | 62 |
| 1384 | A simple approach toward quantitative phase field simulation for dilute-alloy solidification. Journal of Crystal Growth, 2005, 282, 515-524. | 0.7 | 11 |
| 1385 | Phase-field simulation during directional solidification of a binary alloy using adaptive finite element method. Journal of Crystal Growth, 2005, 283, 263-278. | 0.7 | 67 |
| 1386 | Fractal aggregation growth and the surrounding diffusion field. Journal of Crystal Growth, 2005, 283, 533-539. | 0.7 | 28 |
| 1387 | Bloch-front turbulence: theory and experiments. Physica A: Statistical Mechanics and Its Applications, 2005, 356, 88-94. | 1.2 | 1 |
| 1388 | Microstructure evolution in directionally solidified Fe–18Cr stainless steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 413-414, 306-311. | 2.6 | 24 |
| 1389 | Interface morphology evolvement and microstructure characteristics of hypoeutectic Cu–1.0 wt%Cr alloy during unidirectional solidification. Science and Technology of Advanced Materials, 2005, 6, 950-955. | 2.8 | 5 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1390 | Quantitative phase field simulation of deep cells in directional solidification of an alloy. Acta Materialia, 2005, 53, 2285-2294. | 3.8 | 29 |
| 1391 | Evaporation and condensation of H I clouds in thermally bistable interstellar media: semi-analytic description of isobaric dynamics of curved interfaces. Monthly Notices of the Royal Astronomical Society: Letters, 2005, 361, L25-L29. | 1.2 | 9 |
| 1392 | Directional solidification of highly undercooled eutectic Ni78.6Si21.4 alloy. Materials Letters, 2005, 59, 1558-1562. | 1.3 | 12 |
| 1393 | Morphological instability of spherical γ′ precipitates in a nickel base superalloy. Scripta Materialia, 2005, 53, 81-85. | 2.6 | 41 |
| 1394 | Dendritic solidification of binary alloys with free and forced convection. International Journal for Numerical Methods in Fluids, 2005, 49, 233-266. | 0.9 | 25 |
| 1395 | Equilibrium and growth shapes of crystals: how do they differ and why should we care?. Crystal Research and Technology, 2005, 40, 291-306. | 0.6 | 108 |
| 1396 | Hierarchical evolution of arrayed nanowires, nanorods, and nanosheets in ZnO. Applied Physics A: Materials Science and Processing, 2005, 80, 43-46. | 1.1 | 14 |
| 1397 | Evolution of nanowires, nanocombs, and nanosheets in oxide semiconductors with variation of processing conditions. Journal of the European Ceramic Society, 2005, 25, 2037-2040. | 2.8 | 14 |
| 1398 | Nonlinear morphological control of growing crystals. Physica D: Nonlinear Phenomena, 2005, 208, 209-219. | 1.3 | 24 |
| 1399 | A two-region diffusion model for current-induced instabilities of step patterns on vicinal Si(111) surfaces. Surface Science, 2005, 580, 107-121. | 0.8 | 4 |
| 1400 | Tailoring of dendritic microstructure in solidification processing by crucible vibration/rotation. Microgravity Science and Technology, 2005, 16, 15-19. | 0.7 | 3 |
| 1401 | Directional solidification of cellular arrays in transparent alloys. Microgravity Science and Technology, 2005, 16, 116-119. | 0.7 | 2 |
| 1402 | Vibration influence on morphological instability of a solidification front. Microgravity Science and Technology, 2005, 16, 290-294. | 0.7 | 7 |
| 1403 | Experimental evidence of crystal fragmentation from highly undercooled Ni99B1 melts processed on an electrostatic levitator. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 3254-3257. | 1.1 | 11 |
| 1404 | Environmentally assisted cracking behavior of peak-aged 7010 aluminum alloy containing scandium. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 3257-3262. | 1.1 | 22 |
| 1405 | Phase selection during directional solidification of peritectic alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 1287-1300. | 1.1 | 27 |
| 1406 | Utility of Simple Rate Equations for Solid State Reactions. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2005, 631, 433-442. | 0.6 | 9 |
| 1408 | Explaining microstructural and physical variations in rapid additive manufactured waspaloy parts through the laser-deposition thermal cycle. , 2005, , . | | 1 |

| # 1409 | ARTICLE Bulk Crystal Growth of Electronic, Optical & Optoelectronic Materials. , 2005, , . | IF | Citations 37 |
|-----------|--|------|-----------------|
| 1410 | Asymmetrical contribution of eutectic growth kinetics on the coupled growth behaviour in rapid eutectic solidification. Philosophical Magazine, 2005, 85, 2581-2591. | 0.7 | 4 |
| 1411 | The physics of snow crystals. Reports on Progress in Physics, 2005, 68, 855-895. | 8.1 | 458 |
| 1412 | Microstructure Evolution of a Zn-4wt.% Cu Hyperperitectic Alloy under Laser Surface Remelting. Materials Science Forum, 2005, 475-479, 2611-2614. | 0.3 | 0 |
| 1413 | Peculiarities of Precipitation of Intermediate Phase in Ternary Alloys. Defect and Diffusion Forum, 2005, 237-240, 1234-1239. | 0.4 | 0 |
| 1414 | Microstructure Evolution in a Directional Solidification Process. Materials Science Forum, 2005, 475-479, 2757-2760. | 0.3 | 0 |
| 1415 | Low energy electron microscopy investigations of kinetics and energetics on clean close-packed metal surfaces. Journal of Physics Condensed Matter, 2005, 17, S1397-S1406. | 0.7 | 4 |
| 1416 | Temperature dependence of island growth shapes during submonolayer deposition ofAgonAg(111). Physical Review B, 2005, 71, . | 1.1 | 53 |
| 1417 | Brine Rejection from Freezing Salt Solutions: A Molecular Dynamics Study. Physical Review Letters, 2005, 95, 148501. | 2.9 | 138 |
| 1418 | Thermal and Solute Transportation Effects during Bridgman Crystal Growth of II-VI Compounds. Materials Science Forum, 2005, 475-479, 1657-1662. | 0.3 | 1 |
| 1419 | Solidification: Models and Simulations. , 2005, , 401-408. | | 0 |
| 1420 | The surface of helium crystals. Reviews of Modern Physics, 2005, 77, 317-370. | 16.4 | 175 |
| 1422 | Growth and form of spherulites. Physical Review E, 2005, 72, 011605. | 0.8 | 415 |
| 1423 | Phase-field simulation of structure evolution at high growth velocities during directional solidification of Ti55Al45 alloy. Intermetallics, 2005, 13, 275-279. | 1.8 | 13 |
| 1424 | On crystallization at the inner core boundary. Physics of the Earth and Planetary Interiors, 2005, 151, 37-51. | 0.7 | 49 |
| 1425 | One-dimensional solidification of an alloy with a mushy zone: thermodiffusion and temperature-dependent diffusivity. Journal of Fluid Mechanics, 2005, 527, 57-66. | 1.4 | 49 |
| 1426 | Crystal Growth, Bulk: Theory and Models. , 2005, , 274-282. | | 2 |
| 1427 | Dynamics of Methaneâ^'Propane Clathrate Hydrate Crystal Growth from Liquid Water with or without the Presence of n-Heptane. Crystal Growth and Design, 2006, 6, 1428-1439. | 1.4 | 75 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1428 | Pattern Formation and Morphology Evolution in Langmuir Monolayers. Journal of Physical Chemistry B, 2006, 110, 4824-4835. | 1.2 | 33 |
| 1429 | Unified theory of linear instability of anisotropic surfaces and interfaces under capillary, electrostatic, and elastostatic forces: The regrowth of epitaxial amorphous silicon. Physical Review B, 2006, 74, . | 1.1 | 22 |
| 1430 | Quasi-Emulsion Precipitation of Pharmaceuticals. 1. Conditions for Formation and Crystal Nucleation and Growth Behavior. Crystal Growth and Design, 2006, 6, 2214-2227. | 1.4 | 33 |
| 1431 | Solidification of colloidal suspensions. Journal of Fluid Mechanics, 2006, 554, 147. | 1.4 | 158 |
| 1432 | Chemical Reaction-Inspired Crystal Growth of a Coordination Polymer toward Morphology Design and Control. Journal of the American Chemical Society, 2006, 128, 15799-15808. | 6.6 | 29 |
| 1433 | Directional solidification with a two-phase zone: thermodiffusion and temperature-dependent diffusivity. Computational Materials Science, 2006, 37, 1-6. | 1.4 | 53 |
| 1434 | Successive segregation in laser-crystallized poly-SiGe thin films. Journal of Non-Crystalline Solids, 2006, 352, 1259-1262. | 1.5 | 6 |
| 1435 | Modeling of Macrosegregation and Solidification Grain Structures with a Coupled Cellular Automaton-Finite Element Model. ISIJ International, 2006, 46, 880-895. | 0.6 | 63 |
| 1437 | Phase-field Simulation of Widmanstaetten Ferrite Formation in Fe-C Alloy. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2006, 72, 1676-1683. | 0.2 | 1 |
| 1438 | Synthesis of ultrawide ZnO nanosheets. Current Applied Physics, 2006, 6, 1020-1023. | 1.1 | 29 |
| 1439 | Phase-field simulation of the columnar-to-equiaxed transition in alloy solidification. Acta Materialia, 2006, 54, 2015-2026. | 3.8 | 141 |
| 1440 | Creation of semisolid slurries containing fine and spherical particles by grain refinement based on the Mullins–Sekerka stability criterion. Acta Materialia, 2006, 54, 2241-2252. | 3.8 | 43 |
| 1441 | Unidirectional solidification with a mushy layer. The influence of weak convection. Acta Materialia, 2006, 54, 2401-2406. | 3.8 | 53 |
| 1442 | Morphological evolution during solidification under stirring. Acta Materialia, 2006, 54, 4815-4824. | 3.8 | 66 |
| 1443 | Thermal–solutal flows and segregation and their control by angular vibration in vertical Bridgman crystal growth. Chemical Engineering Science, 2006, 61, 7766-7773. | 1.9 | 11 |
| 1444 | The effect of kinetics on the interface stability under the non-equilibrium condition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 433, 182-189. | 2.6 | 1 |
| 1445 | A level set simulation of dendritic solidification with combined features of front-tracking and fixed-domain methods. Journal of Computational Physics, 2006, 211, 36-63. | 1.9 | 109 |
| 1446 | Asymptotic solutions for an axisymmetric, stagnant film model of directional solidification. Journal of Crystal Growth, 2006, 289, 715-726. | 0.7 | 3 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1447 | Second order sharp-interface and thin-interface asymptotic analyses and error minimization for phase-field descriptions of two-sided dilute binary alloy solidification. Journal of Crystal Growth, 2006, 291, 272-289. | 0.7 | 14 |
| 1448 | An asymptotic analysis for directional solidification of a diffusion-dominated binary system. Journal of Crystal Growth, 2006, 292, 111-124. | 0.7 | 5 |
| 1449 | Phase field modeling of convective and morphological instability during directional solidification of an alloy. Journal of Crystal Growth, 2006, 295, 202-208. | 0.7 | 23 |
| 1450 | Microstructure and solidification behavior of cast GalnSb alloys. Journal of Crystal Growth, 2006, 295, 108-113. | 0.7 | 8 |
| 1451 | Length scales and roughness on a growing solid surface: A review. Journal of Electroanalytical Chemistry, 2006, 595, 1-10. | 1.9 | 7 |
| 1452 | Mechanical properties as a function of microstructure and solidification thermal variables of Al–Si castings. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 421, 245-253. | 2.6 | 101 |
| 1453 | Microstructural observations of the crystallization of amorphous Fe–Si–B based magnetic alloys. Thin Solid Films, 2006, 505, 97-102. | 0.8 | 35 |
| 1454 | Investigation of the stability of the flat crystallization front of a binary melt by a variational method. Crystallography Reports, 2006, 51, 116-121. | 0.1 | 0 |
| 1455 | Self-organization of spatially inhomogeneous structures during volume crystallization of polydisperse systems. Technical Physics, 2006, 51, 1183-1189. | 0.2 | 1 |
| 1456 | Reaction products at brazed interface between Ag–Cu–V filler metal and diamond (111). Journal of Materials Science, 2006, 41, 6409-6416. | 1.7 | 30 |
| 1457 | Understanding the chemical physics of nucleation. Theoretical Chemistry Accounts, 2006, 116, 169-182. | 0.5 | 21 |
| 1458 | Modelling dendritic solidification with melt convection using the extended finite element method. Journal of Computational Physics, 2006, 218, 200-227. | 1.9 | 49 |
| 1459 | Spheroidal particle stability in semisolid processing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 2807-2815. | 1.1 | 28 |
| 1461 | Dendritic solidification morphology viewed from the perspective of constructal theory. Journal Physics D: Applied Physics, 2006, 39, 5252-5266. | 1.3 | 13 |
| 1462 | Surface Treatment of Materials with Low-Energy, High-Current Electron Beams. , 2006, , 205-240. | | 104 |
| 1463 | Multiscale approach to CO2 hydrate formation in aqueous solution: Phase field theory and molecular dynamics. Nucleation and growth. Journal of Chemical Physics, 2006, 124, 234710. | 1.2 | 71 |
| 1464 | Spatio-temporal microstructure evolution in directional solidification processes. Philosophical Magazine, 2006, 86, 3717-3738. | 0.7 | 9 |
| 1465 | A Combined Analytic and Numerical Method for Predicting Solid Layer Growth in a Static Melt Crystallizer, Numerical Heat Transfer: Part A: Applications, 2006, 49, 831-850 | 1.2 | 3 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1466 | Absolute stability of the solidification interface in a laser resolidified Zn–2wt.%Cu hypoperitectic alloy. Chinese Physics B, 2006, 15, 1631-1637. | 1.3 | 3 |
| 1467 | Dendritic solidification and characterization of a succinonitrile–acetone alloy. Journal of Physics Condensed Matter, 2006, 18, 7825-7839. | 0.7 | 12 |
| 1468 | Cusp instability and phase field in forced velocity solidification of binary alloys. Applied Physics Letters, 2006, 88, 091907. | 1.5 | 0 |
| 1469 | Breaking of translational symmetry of a traveling planar impulse in a two-dimensional two-variable reaction-diffusion model. Physical Review E, 2006, 73, 046128. | 0.8 | 3 |
| 1470 | Boundary dynamics of the sweeping interface. Physical Review E, 2006, 73, 061603. | 0.8 | 3 |
| 1471 | Segregation Instabilities of Moving Interfaces. Physical Review Letters, 2006, 97, 176101. | 2.9 | 2 |
| 1472 | Flux dependence of the morphology of a tetracene film on hydrogen-passivated Si(100). Physical Review B, 2006, 73, . | 1.1 | 22 |
| 1473 | Solid state dendrite formation in an amorphous magnetic Fe77.5Si13.5B9 alloy observed by in situ hot stage transmission electron microscopy. Applied Physics Letters, 2006, 88, 182506. | 1.5 | 15 |
| 1474 | On the role of confinement on solidification in pure materials and binary alloys. Philosophical Magazine, 2006, 86, 3739-3756. | 0.7 | 24 |
| 1476 | Growth Behavior and Structure of Copper Film Electrodeposited at the Interface Between Two Immiscible Liquids. Journal of the Electrochemical Society, 2007, 154, D617. | 1.3 | 2 |
| 1477 | How soft materials control harder ones: routes to bioorganization. Reports on Progress in Physics, 2007, 70, 1055-1097. | 8.1 | 18 |
| 1478 | Coherence of dendritic sidebranching in directional solidification. Europhysics Letters, 2007, 77, 46001. | 0.7 | 10 |
| 1479 | Anomalous Scaling for Thick Electrodeposited Films. Physical Review Letters, 2007, 98, 236101. | 2.9 | 40 |
| 1480 | Instabilities in Droplets Spreading on Gels. Physical Review Letters, 2007, 99, 124501. | 2.9 | 32 |
| 1481 | Nonequilibrium Thermodynamics and Statistical Physics of Surfaces. Advances in Chemical Physics, 2007, , 47-109. | 0.3 | 69 |
| 1482 | Investigation on stability of directionally solidified CBr 4 –C 2 Cl 6 lamellar eutectic by using multiphase field simulation. Chinese Physics B, 2007, 16, 805-811. | 1.3 | 4 |
| 1483 | Effect of Buoyancy on Morphological Instability during Electrochemical Deposition. Journal of the Electrochemical Society, 2007, 154, D678. | 1.3 | 0 |
| 1484 | Phase separations of single-crystal nanowires grown by self-catalytic chemical vapor deposition method. Journal of Chemical Physics, 2007, 126, 064704. | 1.2 | 15 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1485 | A three-dimensional microstructural model of reactions and transport in aqueous mineral systems. Modelling and Simulation in Materials Science and Engineering, 2007, 15, 711-738. | 0.8 | 62 |
| 1486 | Lattice Model of Sweeping Interface for Drying Process in Water–Granule Mixture. Journal of the Physical Society of Japan, 2007, 76, 024003. | 0.7 | 3 |
| 1487 | Large-Scale Numerical Modeling of Melt and Solution Crystal Growth. AIP Conference Proceedings, 2007, , . | 0.3 | 6 |
| 1488 | Morphological Instabilities in Time Periodic Crystallization. Journal of Mechanics, 2007, 23, 295-302. | 0.7 | 0 |
| 1489 | On the existence and structure of a mush at the inner core boundary of the Earth. Physics of the Earth and Planetary Interiors, 2007, 164, 36-49. | 0.7 | 57 |
| 1490 | Solid structure formation during the liquid/solid phase transition. Current Opinion in Solid State and Materials Science, 2007, 11, 76-85. | 5.6 | 39 |
| 1491 | Temperature distribution in front of the liquid-solid interface in the undercooled pure melt influenced by a transverse far field flow. International Journal of Minerals, Metallurgy, and Materials, 2007, 14, 495-500. | 0.2 | 1 |
| 1492 | Phase Equilibria and Phase Transformations. , 0, , 347-422. | | 1 |
| 1494 | Onset of convection in two liquid layers with phase change. Physics of Fluids, 2007, 19, 104109. | 1.6 | 16 |
| 1495 | 30 Years of Modeling of Microstructure Evolution during Casting Solidification. Advanced Materials Research, 0, 23, 9-16. | 0.3 | 4 |
| 1496 | Compositional and Morphological Evolutions during the Electrodeposition of up to 130â€,μm Thick Cadmium Telluride Layers. Journal of the Electrochemical Society, 2007, 154, D310. | 1.3 | 6 |
| 1497 | PEG-Induced Morphologically Unstable Growth of Tetragonal Hen Egg-White Lysozyme Crystals. Crystal Growth and Design, 2007, 7, 1999-2008. | 1.4 | 4 |
| 1498 | Switching Direction of Laterally Ordered Monolayers Induced by Transfer Instability. Journal of Physical Chemistry B, 2007, 111, 9189-9192. | 1.2 | 22 |
| 1499 | Quantum Mazes: Luminescent Labyrinthine Semiconductor Nanocrystals Having a Narrow Emission Spectrum. ACS Nano, 2007, 1, 337-347. | 7.3 | 10 |
| 1500 | Solidification and Grown-in Defects. , 0, , 63-118. | | 0 |
| 1501 | Steady-state mushy layers: experiments and theory. Journal of Fluid Mechanics, 2007, 570, 69-77. | 1.4 | 42 |
| 1502 | Fundamentals of Defects in Crystals. AIP Conference Proceedings, 2007, , . | 0.3 | 3 |
| 1503 | Inner-Core Dynamics. , 2007, , 299-318. | | 12 |

| # | Article | IF | CITATIONS |
|------|--|------------------|------------------|
| 1504 | Crystal Growth from Melts and Solutions. Inorganic Reactions and Methods, 2007, , 54-55. | 0.0 | 0 |
| 1505 | Morphological Instability and Growth of Phases. , 2007, , 365-398. | | 0 |
| 1506 | A stability diagram for crystal growth from the vapor – a review. Crystal Research and Technology, 2007, 42, 1202-1206. | 0.6 | 2 |
| 1507 | Analysis of non-equilibrium dendrite growth in a bulk undercooled alloy melt: Model and application. Acta Materialia, 2007, 55, 497-506. | 3.8 | 69 |
| 1508 | Ice-templated porous alumina structures. Acta Materialia, 2007, 55, 1965-1974. | 3.8 | 647 |
| 1509 | Effects of angular vibration on the flow, segregation, and interface morphology in vertical Bridgman crystal growth. International Journal of Heat and Mass Transfer, 2007, 50, 58-66. | 2.5 | 12 |
| 1510 | Nonlinear dynamics of directional solidification with a mushy layer. Analytic solutions of the problem. International Journal of Heat and Mass Transfer, 2007, 50, 3616-3623. | 2.5 | 57 |
| 1511 | Microstructures in rapidly solidified AISI 304 interpreted according to phase selection theory. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 449-451, 999-1002. | 2.6 | 16 |
| 1512 | Microstructure development of unidirectionally solidified (Nb)/Nb3Si eutectic alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 444, 51-57. | 2.6 | 44 |
| 1513 | Effects of electric current pulse on stability of solid/liquid interface of Al–4.5wt.% Cu alloy during directional solidification. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 466, 56-60. | 2.6 | 28 |
| 1514 | A level set simulation of dendritic solidification of multi-component alloys. Journal of Computational Physics, 2007, 221, 9-40. | 1.9 | 74 |
| 1515 | Simulations of reactive transport and precipitation with smoothed particle hydrodynamics. Journal of Computational Physics, 2007, 222, 654-672. | 1.9 | 200 |
| 1516 | Microstructure characteristics and interface morphology evolvement of Si-TaSi2 eutectic in situ composite for field emission. Journal of Crystal Growth, 2007, 299, 248-253. | 0.7 | 7 |
| 1517 | Vibration effect on morphological instability of planar solidification front. Journal of Crystal Growth, 2007, 303, 269-273. | 0.7 | 6 |
| 1518 | Realâ€ŧime and <i>in situ</i> solidification of Alâ€based alloys investigated by synchrotron radiation: a unique experimental setâ€up combining radiography and topography techniques. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 2721-2727. | 0.8 | 23 |
| 1519 | Dendritic growth of poly(εâ€caprolactone) crystals from compatible blends with poly(<i>t</i> â€butyl) Tj ETQq1 3200-3318. | 1 0.78431 2.4 | 4 rgBT /Ov 16 |
| 1520 | Controlled growth of Csl〈Tl〉 single crystals. Inorganic Materials, 2007, 43, 1263-1269. | 0.2 | 2 |
| 1521 | Synthesis of Kelp-Like Crystalline ?-SiC Nanobelts and their Apical Growth Mechanism. Journal of the American Ceramic Society, 2007, 90, 653-656. | 1.9 | 14 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1522 | Patterning of Non-Linear Optical Crystals in Glass by Laser-Induced Crystallization. Journal of the American Ceramic Society, 2007, 90, 699-705. | 1.9 | 118 |
| 1523 | Effect of non-linear liquidus and solidus in undercooled dendrite growth: A comparative study in Ni–0.7at.% B and Ni–1at.% Zr systems. Scripta Materialia, 2007, 57, 413-416. | 2.6 | 20 |
| 1524 | Convective heat and mass transfer at the solidification front of binary alloys subjected to laser treatment. Physics of Metals and Metallography, 2007, 103, 1-11. | 0.3 | 2 |
| 1525 | Morphological instability in freezing colloidal suspensions. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 723-733. | 1.0 | 82 |
| 1526 | Computation of nonlinear multiscale coupling effects in liquid phase epitaxy. European Physical Journal: Special Topics, 2007, 149, 1-17. | 1.2 | 3 |
| 1527 | Determination of the effective mode-I toughness of a sinusoidal interface between two elastic solids. International Journal of Fracture, 2007, 145, 167-180. | 1.1 | 51 |
| 1529 | Microstructure evolution of laser surface remelted Zn-2.7Âwt.%Cu hyperperitectic alloy. Journal of Materials Science, 2007, 42, 4763-4771. | 1.7 | 2 |
| 1530 | Enhanced Morphological Stability in Sb-Doped Ge. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 100-115. | 1.1 | 5 |
| 1531 | Convection in a Mushy Zone Forced by Sidewall Heat Losses. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 1069-1079. | 1.1 | 11 |
| 1532 | Determination of the Solute Diffusion Coefficient by the Droplet Migration Method. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 1555-1562. | 1.1 | 11 |
| 1533 | Phase-Field Study of the Cellular Bifurcation in Dilute Binary Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 1407-1416. | 1.1 | 17 |
| 1534 | Thermodynamic and Microstructural Modeling of Nb-Si Based Alloys. Journal of Phase Equilibria and Diffusion, 2007, 28, 2-8. | 0.5 | 16 |
| 1535 | Design of mechanical properties of a Zn27Al alloy based on microstructure dendritic array spacing. Materials & Design, 2007, 28, 2425-2430. | 5.1 | 51 |
| 1536 | Preparation of poly(L-lactic acid) honeycomb monolith structure by unidirectional freezing and freeze-drying. Chemical Engineering Science, 2008, 63, 3858-3863. | 1.9 | 53 |
| 1537 | Macromorphologies in electrochemically formed porous silica. Electrochimica Acta, 2008, 53, 4485-4494. | 2.6 | 13 |
| 1538 | A numerical method for the Rubinstein binary-alloy problem in the presence of an under-cooled liquid. International Journal of Heat and Mass Transfer, 2008, 51, 696-706. | 2.5 | 12 |
| 1539 | A scanning electron microscopic study to observe the changes in the growth morphology of the α phased Alumina–13Âwt.% titania coatings during plasma spraying. Surface and Coatings Technology, 2008, 202, 5074-5083. | 2.2 | 5 |
| 1540 | In-Situ and Real-Time Analysis of the Formation of Strains and Microstructure Defects during Solidification of Al-3.5ÂWt Pct Ni Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 865-874. | 1.1 | 93 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1541 | Effects of Small Additions of Copper and Copper + Nickel on the Oxidation Behavior of Iron. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2008, 39, 725-737. | 1.0 | 19 |
| 1542 | Structure of nanocomposites of Al-Fe alloys prepared by mechanical alloying and rapid solidification processing. Bulletin of Materials Science, 2008, 31, 449-454. | 0.8 | 27 |
| 1543 | Expulsion of magnetic flux lines from the growing superconducting core of a magnetised quark star. Astrophysics and Space Science, 2008, 314, 105-112. | 0.5 | 1 |
| 1544 | Forecast of Water Temperature in Reservoir Based on Analytical Solution. Journal of Hydrodynamics, 2008, 20, 507-513. | 1.3 | 7 |
| 1545 | Laserâ€induced self organization of silicon–germanium hillocks for field emission displays. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 3239-3242. | 0.8 | 2 |
| 1546 | Freeze asting of Porous Ceramics: A Review of Current Achievements and Issues. Advanced Engineering Materials, 2008, 10, 155-169. | 1.6 | 1,003 |
| 1547 | Simulation of directional solidification, thermochemical convection, and chimney formation in a Hele-Shaw cell. Journal of Computational Physics, 2008, 227, 9823-9840. | 1.9 | 59 |
| 1548 | Faceted interfaces in directional solidification. Journal of Crystal Growth, 2008, 310, 414-427. | 0.7 | 6 |
| 1549 | Systematic study of solidification of Lennard-Jones melts including an impurity molecule. Journal of Crystal Growth, 2008, 310, 1349-1354. | 0.7 | 2 |
| 1550 | Modeling of directional solidification on an atomic scale. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 495, 292-295. | 2.6 | 3 |
| 1551 | Stability of lamellar eutectic growth. Acta Materialia, 2008, 56, 1348-1357. | 3.8 | 100 |
| 1552 | An extended morphological stability model for a planar interface incorporating the effect of nonlinear liquidus and solidus. Acta Materialia, 2008, 56, 2592-2601. | 3.8 | 19 |
| 1553 | On the selection of rod-type eutectic morphologies: Geometrical constraint and array orientation. Acta Materialia, 2008, 56, 3862-3873. | 3.8 | 27 |
| 1554 | Morphological instability of cell and dendrite during directional solidification under a high magnetic field. Acta Materialia, 2008, 56, 3146-3161. | 3.8 | 50 |
| 1555 | An adaptive, fully implicit multigrid phase-field model for the quantitative simulation of non-isothermal binary alloy solidification. Acta Materialia, 2008, 56, 4559-4569. | 3.8 | 58 |
| 1556 | Mapping single-crystal dendritic microstructure and defects in nickel-base superalloys with synchrotron radiation. Acta Materialia, 2008, 56, 4715-4723. | 3.8 | 58 |
| 1557 | Cohesive zone simulations of crack growth along a rough interface between two elastic–plastic solids. Engineering Fracture Mechanics, 2008, 75, 4309-4332. | 2.0 | 69 |
| 1558 | Sharp interface numerical simulation of directional solidification of binary alloy in the presence of a ceramic particle. International Journal of Heat and Mass Transfer, 2008, 51, 155-168. | 2.5 | 13 |

| | CHANNER | LPORT | |
|------|---|-------|-----------|
| # | Article | IF | CITATIONS |
| 1559 | Morphological instabilities of polymer crystals. European Physical Journal E, 2008, 27, 63-71. | 0.7 | 46 |
| 1560 | Laser-induced self-organization in silicon-germanium thin films. Journal of Applied Physics, 2008, 103, . | 1.1 | 18 |
| 1561 | Branching and Higher Order Structure in Banded Poly(vinylidene fluoride) Spherulites. Polymer Journal, 2008, 40, 905-909. | 1.3 | 24 |
| 1562 | Modeling of directional solidification in 2D and 3D cases. Crystallography Reports, 2008, 53, 1208-1213. | 0.1 | 1 |
| 1563 | Effect of Polyethylene Glycol on the Microstructure of Freezeâ€Cast Alumina. Journal of the American Ceramic Society, 2008, 91, 3185-3190. | 1.9 | 69 |
| 1564 | Influence of high-frequency vibration on the morphological instability in the directional crystallization of binary melts. Fluid Dynamics, 2008, 43, 514-523. | 0.2 | 4 |
| 1565 | Roughness evolution during chemical vapor deposition. Materials Chemistry and Physics, 2008, 112, 311-318. | 2.0 | 13 |
| 1566 | Selective synthesis of metallic nickel particles with control of shape via wet chemical process. Materials Letters, 2008, 62, 4339-4342. | 1.3 | 13 |
| 1567 | Unified moving-boundary model with fluctuations for unstable diffusive growth. Physical Review E, 2008, 78, 021601. | 0.8 | 21 |
| 1568 | An analysis of convection in a mushy layer with a deformable permeable interface. Journal of Fluid Mechanics, 2008, 596, 333-352. | 1.4 | 24 |
| 1569 | Chapter 8 Introduction to Stefan-Type Problems. Handbook of Differential Equations: Evolutionary Equations, 2008, 4, 377-484. | 0.9 | 17 |
| 1570 | Level set simulation of coupled advectionâ€diffusion and pore structure evolution due to mineral precipitation in porous media. Water Resources Research, 2008, 44, . | 1.7 | 55 |
| 1571 | Reducing Melt Inclusion by Submerged Heater or Baffle for Optical Crystal Growth. Crystal Growth and Design, 2008, 8, 1840-1848. | 1.4 | 20 |
| 1572 | Microstructure and hardness of electron beam molten surface of DSX40M alloy. Journal of Alloys and Compounds, 2008, 461, 102-105. | 2.8 | 7 |
| 1573 | The phase field technique for modeling multiphase materials. Reports on Progress in Physics, 2008, 71, 106501. | 8.1 | 181 |
| 1574 | Calcite precipitation instability under laminar, open-channel flow. Geochimica Et Cosmochimica Acta, 2008, 72, 5009-5021. | 1.6 | 28 |
| 1575 | Numerical Tests of a Phase Field Model with Second Order Accuracy. SIAM Journal on Applied Mathematics, 2008, 68, 1518-1534. | 0.8 | 8 |
| 1576 | Stability of Equilibria for the Stefan Problem With Surface Tension. SIAM Journal on Mathematical Analysis, 2008, 40, 675-698. | 0.9 | 26 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1577 | 3D anisotropy simulation of dendrites growth with phase field method. Transactions of Nonferrous Metals Society of China, 2008, 18, s223-s228. | 1.7 | 6 |
| 1578 | Modeling of Cell/Dendrite Transition During Directional Solidification of Ti-Al Alloy Using Cellular Automaton Method. Journal of Iron and Steel Research International, 2008, 15, 82-86. | 1.4 | 4 |
| 1579 | Effect of cooling rate on solidification microstructures in AISI 304 stainless steel. Materials Science and Technology, 2008, 24, 941-944. | 0.8 | 104 |
| 1580 | Dendrimer Pattern Formation in Evaporating Drops: Solvent, Size, and Concentration Effects. Journal of Physical Chemistry C, 2008, 112, 14266-14273. | 1.5 | 11 |
| 1581 | Growth Constants in Solidification. Industrial & Engineering Chemistry Research, 2008, 47, 5087-5091. | 1.8 | 0 |
| 1582 | Masses and magnetic moments of heavy flavour baryons in the hyper central model. Journal of Physics G: Nuclear and Particle Physics, 2008, 35, 065001. | 1.4 | 84 |
| 1583 | Dendritic-to-faceted crystal pattern transition of ultrathin poly(ethylene oxide) films. Journal of Chemical Physics, 2008, 129, 224708. | 1.2 | 19 |
| 1584 | CRITICAL POINTS IN THE SOLIDIFICATION OF A PURE MATERIAL. Chemical Engineering Communications, 2008, 195, 834-845. | 1.5 | 0 |
| 1585 | Scale-invariant competitive growth of side branches in a dendritic crystal. Physical Review E, 2008, 77, 030602. | 0.8 | 7 |
| 1586 | Monodomain alignment of the smectic-A liquid crystalline phase from the isotropic phase. Journal of Applied Physics, 2008, 104, 044902. | 1.1 | 6 |
| 1587 | Transition from longitudinal to transversal patterns in an anisotropic system. Physical Review E, 2008, 78, 046215. | 0.8 | 20 |
| 1588 | Experimental Verification of Morphological Instability in Freezing Aqueous Colloidal Suspensions. Physical Review Letters, 2008, 100, 238301. | 2.9 | 93 |
| 1589 | Steady-state solidification of aqueous ammonium chloride. Journal of Fluid Mechanics, 2008, 599, 465-476. | 1.4 | 59 |
| 1590 | Shear-enhanced convection in a mushy layer. Journal of Fluid Mechanics, 2008, 612, 339-361. | 1.4 | 18 |
| 1591 | Growth Constants of Unstable Surfaces in Cylindrical Systems. Mathematical Modelling of Natural Phenomena, 2008, 3, 55-74. | 0.9 | 0 |
| 1592 | Numerical Analysis on Columnar-to-equiaxed Transition of δ-Ferrite Dendrite in Carbon Steel Induced by Titanium Carbonitride Particles. ISIJ International, 2009, 49, 1568-1574. | 0.6 | 5 |
| 1593 | Quantitative phase-field modeling of solidification at high Lewis number. Physical Review E, 2009, 79, 030601. | 0.8 | 32 |
| 1594 | Formation mechanism of a faceted interface: <i>In situ</i> observation of the Si(100) crystal-melt interface during crystal growth. Physical Review B, 2009, 80, . | 1.1 | 52 |

| ~ | | | ~ | | |
|-----|-----|-----------|------|----|----|
| CIT | ATI | ON | I KE | PO | RT |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1595 | Self-organized dendritic sidebranching in directional solidification: Sidebranch coherence within uncorrelated bursts. Physical Review E, 2009, 80, 031601. | 0.8 | 17 |
| 1596 | Weakly faceted cellular patterns versus growth-induced plastic deformation in thin-sample directional solidification of monoclinic biphenyl. Physical Review E, 2009, 80, 051601. | 0.8 | 10 |
| 1597 | Onset of initial planar instability with surface-tension anisotropy during directional solidification. Physical Review E, 2009, 80, 052603. | 0.8 | 27 |
| 1598 | Effect of stress on the growth of concentric grains and pores embedded in a binary alloy matrix. Physical Review B, 2009, 79, . | 1.1 | 0 |
| 1599 | Theory and computation of directional nematic phase ordering. Physical Review E, 2009, 79, 021702. | 0.8 | 12 |
| 1600 | Fourier synthesis predicting onset of the initial instability during directional solidification. Applied Physics Letters, 2009, 94, 061920. | 1.5 | 12 |
| 1601 | DETERMINATION OF ANISOTROPY OF CRYSTAL-MELT INTERFACIAL ENERGY FROM THE OBSERVED GRAIN BOUNDARY GROOVE SHAPES AT MULTIPLE ORIENTATIONS. Surface Review and Letters, 2009, 16, 579-588. | 0.5 | 0 |
| 1602 | Evidence of self-affine multiplicity fluctuation of particle production in ⁸⁴ Kr–emulsion interactions at 1.7 A GeV. Chinese Physics B, 2009, 18, 522-530. | 0.7 | 1 |
| 1603 | The effect of anisotropic surface tension on the morphological stability of planar interface during directional solidification. Chinese Physics B, 2009, 18, 1691-1699. | 0.7 | 11 |
| 1604 | Three-dimensional interfacial wave theory of dendritic growth: (I). multiple variables expansion solutions. Chinese Physics B, 2009, 18, 671-685. | 0.7 | 12 |
| 1605 | Fundamentals of Cryobiology. Biological and Medical Physics Series, 2009, , . | 0.3 | 23 |
| 1606 | Modeling solute clustering in the diffusion layer around a growing crystal. Journal of Chemical Physics, 2009, 130, 094105. | 1.2 | 5 |
| 1607 | Experimental evidence for liquid/solid interface instability caused by the stress in the solid during directional solidification under a strong magnetic field. Scripta Materialia, 2009, 60, 489-492. | 2.6 | 18 |
| 1608 | Prediction of shear-band thickness in metallic glasses. Scripta Materialia, 2009, 60, 1004-1007. | 2.6 | 80 |
| 1609 | Numerical test of generalized marginal stability theory for a planar interface during directional solidification. Scripta Materialia, 2009, 61, 485-488. | 2.6 | 13 |
| 1610 | Basalt columns: Large scale constitutional supercooling?. Journal of Volcanology and Geothermal Research, 2009, 184, 347-350. | 0.8 | 24 |
| 1611 | Cellular growth of lamellar eutectics in undercooled Ag–Cu alloy. Materials Characterization, 2009, 60, 519-524. | 1.9 | 37 |
| 1612 | Effects of surface tension anisotropy on interfacial instability in directional solidification. Crystal Research and Technology, 2009, 44, 43-53. | 0.6 | 9 |

| # | Article | IF | CITATIONS |
|------|--|------|-----------|
| 1613 | On a possible mechanism of low surface magnetic field structure of quark stars. Astrophysics and Space Science, 2009, 323, 123-133. | 0.5 | 0 |
| 1614 | Growth of tin oxide rod-like and sheet-like structures. Journal of Materials Science: Materials in Electronics, 2009, 20, 99-104. | 1.1 | 8 |
| 1615 | 3-sheet structure of Inconel 718 superalloy processed by LBW/SPF and its load response. Science in China Series D: Earth Sciences, 2009, 52, 2237-2244. | 0.9 | 1 |
| 1616 | The effect of the shear flow on directional solidification of SCN-3wt% Salol alloy. Science in China Series G: Physics, Mechanics and Astronomy, 2009, 52, 742-746. | 0.2 | 2 |
| 1617 | Periodical oscillating interface in directional growth under shear flow. Science Bulletin, 2009, 54, 4432-4437. | 4.3 | 1 |
| 1618 | The prediction of tip radius during rapid dendritic growth under coupled thermo-solutal control: What value Ïf. Transactions of the Indian Institute of Metals, 2009, 62, 309-313. | 0.7 | 0 |
| 1619 | Multi-photon induced ultraviolet emission from hexagram-shaped ZnO nanorods. Applied Physics A: Materials Science and Processing, 2009, 95, 381-385. | 1.1 | 11 |
| 1620 | Probing interfacial equilibration in microsphere crystals formed by DNA-directed assembly. Nature Materials, 2009, 8, 52-55. | 13.3 | 83 |
| 1621 | In Situ Xâ€Ray Radiography and Tomography Observations of the Solidification of Aqueous Alumina Particle Suspensions—Part I: Initial Instants. Journal of the American Ceramic Society, 2009, 92, 2489-2496. | 1.9 | 107 |
| 1622 | Three-dimensional multi-phase field simulation of the lamellar growth stability in a directionally solidified hypereutectic CBr4–C2Cl6 alloy. Journal of Crystal Growth, 2009, 311, 2496-2500. | 0.7 | 3 |
| 1623 | Macromolecular effect on crystal pattern formation in ultra-thin films: Molecular segregation in a binary blend of PEO fractions. Polymer, 2009, 50, 6157-6165. | 1.8 | 22 |
| 1624 | Instability of the phase front in the soils freezing process. Chemical Engineering and Processing: Process Intensification, 2009, 48, 476-484. | 1.8 | 2 |
| 1625 | Solidification microstructures and solid-state parallels: Recent developments, future directions. Acta Materialia, 2009, 57, 941-971. | 3.8 | 624 |
| 1626 | Stress-induced destabilization of solidification and melting fronts. Acta Materialia, 2009, 57, 1454-1458. | 3.8 | 2 |
| 1627 | Solidification of undercooled eutectic alloys containing a third element. Acta Materialia, 2009, 57, 1536-1545. | 3.8 | 27 |
| 1628 | Effect of a high magnetic field on the morphological instability and irregularity of the interface of a binary alloy during directional solidification. Acta Materialia, 2009, 57, 1689-1701. | 3.8 | 32 |
| 1629 | Onset of sidewise instability and cell–dendrite transition in directional solidification. Acta Materialia, 2009, 57, 3497-3508. | 3.8 | 21 |
| 1630 | Nonisothermal Model for the Direct Isotropic/Smectic-A Liquid-Crystalline Transition. Langmuir, 2009, 25, 11923-11929. | 1.6 | 10 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1631 | Homogenization and two-scale models for liquid phase epitaxy. European Physical Journal: Special Topics, 2009, 177, 5-21. | 1.2 | 2 |
| 1632 | Pattern formation by local amplification and lateral inhibition: Examples from biology and geology. European Physical Journal: Special Topics, 2009, 178, 5-12. | 1.2 | 4 |
| 1633 | Thermodynamics of stressed solids: Slow deformation and roughening of material interfaces. European Physical Journal: Special Topics, 2009, 178, 123-132. | 1.2 | 5 |
| 1634 | Effect of high-frequency vibrations on oriented crystallization of binary alloys. Journal of Surface Investigation, 2009, 3, 116-120. | 0.1 | 5 |
| 1635 | On the dependence of the surface tension at the crystal-melt interface on the impurity concentration. Crystallography Reports, 2009, 54, 702-706. | 0.1 | 0 |
| 1636 | On the dependence of the critical crystallization rate on the initial impurity concentration in melt. Crystallography Reports, 2009, 54, 1268-1272. | 0.1 | 3 |
| 1637 | The Stefan problem of solidification of ternary systems in the presence of moving phase transition regions. Journal of Experimental and Theoretical Physics, 2009, 108, 821-829. | 0.2 | 53 |
| 1638 | Honeycomb Monolith-Structured Silica with Highly Ordered, Three-Dimensionally Interconnected Macroporous Walls. Chemistry of Materials, 2009, 21, 3476-3478. | 3.2 | 37 |
| 1639 | Modeling of Freezing Phenomena Induced by Chemical Reactions. Industrial & Engineering Chemistry Research, 2009, 48, 9755-9762. | 1.8 | 1 |
| 1640 | Modeling of Convection and Macrosegregation through Appropriate Consideration of Multiphase/Multiscale Phenomena during Alloy Solidification. Industrial & Engineering Chemistry Research, 2009, 48, 8789-8804. | 1.8 | 6 |
| 1641 | Frost flower formation on sea ice and lake ice. Geophysical Research Letters, 2009, 36, . | 1.5 | 51 |
| 1642 | Micro-scale phenomena and interface dynamics. , 2009, , 1-30. | | 0 |
| 1643 | Directional growth of metallic and polymeric nanowires. Nanotechnology, 2009, 20, 235307. | 1.3 | 23 |
| 1644 | Implantation and Growth of Dendritic Gold Nanostructures on Graphene Derivatives: Electrical Property Tailoring and Raman Enhancement. ACS Nano, 2009, 3, 2358-2366. | 7.3 | 347 |
| 1645 | Tetrapod-Shaped Colloidal Nanocrystals of IIâ^'VI Semiconductors Prepared by Seeded Growth. Journal of the American Chemical Society, 2009, 131, 2274-2282. | 6.6 | 211 |
| 1646 | Preparation of Porous Poly(l-lactic acid) Honeycomb Monolith Structure by Phase Separation and Unidirectional Freezing. Langmuir, 2009, 25, 5304-5312. | 1.6 | 49 |
| 1647 | Phase-Field Simulation of Dendrite Growth during Electrodeposition. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2009, 73, 601-607. | 0.2 | 4 |
| 1648 | Particle capture in binary solidification. Journal of Fluid Mechanics, 2009, 625, 299-320. | 1.4 | 43 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1649 | Preparation of Sea Urchin-Like Nickel Particles under Rapid Wet Chemical Process. Journal of Chemical Engineering of Japan, 2009, 42, S85-S89. | 0.3 | 2 |
| 1650 | Laser processing of thin semiconductor films. , 0, , 202-239. | | 0 |
| 1651 | Physics of Crystal Growth III: Dendritic Growth Controlled by Heat Conduction. Materia Japan, 2010, 49, 431-436. | 0.1 | 0 |
| 1652 | Global Structure and Shape of NH4Cl Dendritic Crystals in Quasi-Two-Dimensional Growth. Journal of the Physical Society of Japan, 2010, 79, 024802. | 0.7 | 2 |
| 1653 | On the theory of solidification with a two-phase concentration supercooling zone. Russian Metallurgy (Metally), 2010, 2010, 745-750. | 0.1 | 10 |
| 1654 | The influence of convection, anisotropy, and inhomogeneity of a medium on structural-phase transitions during crystallization. Doklady Physics, 2010, 55, 431-435. | 0.2 | 0 |
| 1655 | Peculiarities of the initial transient process of binary melt crystallization. Crystallography Reports, 2010, 55, 882-886. | 0.1 | 4 |
| 1656 | On stable parametric finite element methods for the Stefan problem and the Mullins–Sekerka problem with applications to dendritic growth. Journal of Computational Physics, 2010, 229, 6270-6299. | 1.9 | 34 |
| 1657 | Selection criterion for the growing dendritic tip in a non-isothermal binary system under forced convective flow. Journal of Crystal Growth, 2010, 312, 2122-2127. | 0.7 | 52 |
| 1658 | Polydimensional modelling of dendritic growth and microsegregation in multicomponent alloys. Acta Materialia, 2010, 58, 2738-2751. | 3.8 | 39 |
| 1659 | Stability Criteria for Product Microstructures Formed on Gaseous Reduction of Solid Metal Oxides. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2010, 41, 19-34. | 1.0 | 17 |
| 1660 | Effects of Nickel on the Oxide/Metal Interface Morphology and Oxidation Rate During High-Temperature Oxidation of Fe–Cu–Ni Alloys. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2010, 41, 598-611. | 1.0 | 15 |
| 1661 | Morphological evolution of the interface microstructure in the presence of bubbles during directional solidification. Scripta Materialia, 2010, 63, 1228-1231. | 2.6 | 14 |
| 1663 | Preparation of the initial solid–liquid interface and melt in directional solidification of Al–18at%Ni peritectic alloy. Journal of Crystal Growth, 2010, 312, 2441-2448. | 0.7 | 25 |
| 1664 | Influence of thermal stabilization on the solute concentration of the melt in directional solidification. Journal of Crystal Growth, 2010, 312, 3658-3664. | 0.7 | 25 |
| 1665 | Pattern formation mechanism of a periodically faceted interface during crystallization ofSi. Journal of Crystal Growth, 2010, 312, 3670-3674. | 0.7 | 13 |
| 1666 | Labyrinthine pattern of polymer crystals from supercooled ultrathin films. Polymer, 2010, 51, 554-562. | 1.8 | 18 |
| 1667 | Interface temperature between solid and liquid corium in severe accident situations: A comprehensive study of characteristic time delay needed for reaching liquidus temperature. Nuclear Engineering and Design, 2010, 240, 1975-1985. | 0.8 | 22 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1668 | Ice crystal formation in the carbon nanotube suspension: A modelling approach. Chemical Engineering Science, 2010, 65, 1438-1451. | 1.9 | 25 |
| 1669 | Modeling on Dendrite Growth of Medium Carbon Steel during Continuous Casting. Steel Research International, 2010, 81, 265-277. | 1.0 | 11 |
| 1670 | Phase-Field Modeling of Solute Trapping in Single-Phase Alloys during Directional Solidification. Advanced Materials Research, 2010, 154-155, 401-406. | 0.3 | 2 |
| 1671 | An Analysis on Formation of ANF-6 Electroslag Fluxes Skin of Electroslag Remelting Ingot. Advanced Materials Research, 2010, 146-147, 1729-1732. | 0.3 | 0 |
| 1672 | Linear stability of a solid–vapour interface. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 1005-1025. | 1.0 | 3 |
| 1673 | Geological pattern formation by growth and dissolution in aqueous systems. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 659-694. | 1.0 | 64 |
| 1674 | Change in Interfacial Tension at the Interface Between Two Immiscible Liquids during Electrodeposition of Zinc. Electrochemical and Solid-State Letters, 2010, 13, D57. | 2.2 | 2 |
| 1675 | Sapphire Crystal Growth and Applications. , 2010, , 299-338. | | 6 |
| 1676 | Phase field investigation on the initial planar instability with surface tension anisotropy during directional solidification of binary alloys. Chinese Physics B, 2010, 19, 017305-5. | 0.7 | 7 |
| 1677 | Onset of sidebranching in directional solidification. Physical Review E, 2010, 81, 021608. | 0.8 | 135 |
| 1678 | Phase-field simulation for crystallization of a highly supercooled forsterite-chondrule melt droplet. Journal of Applied Physics, 2010, 108, . | 1.1 | 11 |
| 1679 | Maximal curvature and crystal orientation on directionally solidified dendrites. Physical Review E, 2010, 81, 051608. | 0.8 | 13 |
| 1680 | Evolution of dendrite morphology of a binary alloy under an applied electric current: An <i>in situ</i> observation. Physical Review E, 2010, 81, 042601. | 0.8 | 75 |
| 1681 | Effects of Nickel on Interface Morphology during Oxidation of Fe-Cu-Ni Alloys. Defect and Diffusion Forum, 2010, 297-301, 318-329. | 0.4 | 2 |
| 1682 | Introduction to Phase-Field Model and Its Applications in the Fields of Crystal Growth and Planetary Science. , 2010, , . | | 0 |
| 1683 | Computational analysis of binary segregation during colloidal crystallization with DNA-mediated interactions. Journal of Chemical Physics, 2010, 132, 234705. | 1.2 | 35 |
| 1684 | Modeling and bulk crystal growth processes: What is to be learned?. , 2010, , . | | 3 |
| 1685 | Defect Formation During Crystal Growth from the Melt. , 2010, , 159-201. | | 16 |

ARTICLE IF CITATIONS Transport phenomena of crystal growthâ€"heat and mass transfer. , 2010, , . 10 1686 Spiral Two-Phase Dendrites. Physical Review Letters, 2010, 104, 056101. 1687 38 Multisheet structure of Inconel 718 superalloy processed by LBW/SPF technology and its 1688 0.8 1 microstructure. Materials Science and Technology, 2010, 26, 1232-1238. Octapod-Shaped Colloidal Nanocrystals of Cadmium Chalcogenides via "One-Pot―Cation Exchange 1689 and Seeded Growth. Nano Letters, 2010, 10, 3770-3776. Anomalous roughening of curvature-driven growth with a variable interface window. Physical 1690 0.8 6 Review E, 2010, 82, 021604. Crystal surfaces in and out of equilibrium: A modern view. Reviews of Modern Physics, 2010, 82, 16.4 199 981-1040. Frost heave and phase front instability in freezing soils. Cold Regions Science and Technology, 2010, 1692 1.6 20 64, 19-38. A phase-field model for electrode reactions with Butler–Volmer kinetics. Computational Materials 1.4 63 Science, 2010, 50, 118-124. Sedimentation speed of a free dendrite growing in an undercooled melt. Computational Materials 1694 1.4 8 Science, 2010, 50, 260-267. Effect of nonlinear liquidus and solidus on dendrite growth in bulk undercooled melts. 1.7 Transactions of Nonferrous Metals Society of China, 2010, 20, 490-494. Biomaterials by freeze casting. Philosophical Transactions Series A, Mathematical, Physical, and 1696 1.6 288 Engineering Sciences, 2010, 368, 2099-2121. Bulk Crystal Growth of Ternary Illâ€"V Semiconductors. , 2010, , 281-325. 1698 Manipulating Double-Decker Molecules at the Liquidâ[^]Solid Interface. Journal of the American 1699 6.6 40 Chemical Society, 2010, 132, 16460-16466. Architectural Control of Seeded-Grown Magneticâ^'Semicondutor Iron Oxideâ^'TiO₂ Nanorod Heterostructures: The Role of Seeds in Topology Selection. Journal of the American 1700 6.6 139 Chemical Society, 2010, 132, 2437-2464. 1701 Defects., 2010, , 169-307. 2 Chemical-Garden Formation, Morphology, and Composition. II. Chemical Gardens in Microgravity. 1702 Langmuir, 2011, 27, 3294-3300. Tuning the structure of non-equilibrium soft materials by varying the thermodynamic driving force 1703 1.2 52 for crystal ordering. Soft Matter, 2011, 7, 1789-1799. Phase-field modeling of two-dimensional solute precipitation/dissolution: Solid fingers and 1704 1.2 38 diffusion-limited precipitation. Journal of Chemical Physics, 2011, 134, 044137.

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1705 | Plasma-polymer interactions: A review of progress in understanding polymer resist mask durability during plasma etching for nanoscale fabrication. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, . | 0.6 | 162 |
| 1706 | Formation of Ripples in Graphene as a Result of Interfacial Instabilities. ACS Nano, 2011, 5, 9619-9627. | 7.3 | 99 |
| 1707 | Robust Control of Microdomain Orientation in Thin Films of Block Copolymers by Zone Casting. Journal of the American Chemical Society, 2011, 133, 11802-11809. | 6.6 | 74 |
| 1708 | Leapfrog Cracking and Nanoamorphization of ZnO Nanowires during In Situ Electrochemical Lithiation. Nano Letters, 2011, 11, 4535-4541. | 4.5 | 169 |
| 1709 | Continuum Model of Collective Cell Migration in Wound Healing and Colony Expansion. Biophysical Journal, 2011, 100, 535-543. | 0.2 | 107 |
| 1711 | Constitutional Supercooling. , 2011, , 213-235. | | 4 |
| 1712 | Investigation of gravity effects on solidification of binary alloys with <i>in situ</i> X-ray radiography on earth and in microgravity environment. Journal of Physics: Conference Series, 2011, 327, 012012. | 0.3 | 17 |
| 1713 | Cellular Crystallization in Thin Melt Film of it-Poly(butene-1): An Implication to Spherulitic Growth from Bulk Melt. Macromolecules, 2011, 44, 9239-9246. | 2.2 | 11 |
| 1714 | Self-organization of highly ordered mosaic structure of porous silicon at long anodic etching of p-type silicon in the electrolyte with internal current source. , 2011, , . | | 2 |
| 1715 | Temporal development of melt-pool morphology and clad geometry in laser powder deposition. Computational Materials Science, 2011, 50, 2124-2134. | 1.4 | 78 |
| 1716 | Analysis of limits for sapphire growth in a micro-pulling-down system. Journal of Crystal Growth, 2011, 335, 148-159. | 0.7 | 20 |
| 1717 | A new approach for dopant distribution and morphological stability in crystals grown by the axial heat processing (AHP) technique. Journal of Crystal Growth, 2011, 337, 65-71. | 0.7 | 9 |
| 1718 | Faceting and Branching in 2D Crystal Growth. Physical Review Letters, 2011, 106, 195502. | 2.9 | 63 |
| 1719 | Coupled convective and morphological instability of the inner core boundary of the Earth. Physics of the Earth and Planetary Interiors, 2011, 189, 134-141. | 0.7 | 52 |
| 1720 | Influence of solidification mode on pore structure of directionally solidified porous Cu-Mn alloy. Transactions of Nonferrous Metals Society of China, 2011, 21, 88-95. | 1.7 | 23 |
| 1721 | Secondary Solidification Behaviour of AA8006 Alloy Prepared by Suction Casting. Journal of Materials Science and Technology, 2011, 27, 769-775. | 5.6 | 9 |
| 1722 | The interface morphology of a spherical crystal in the undercooled melt affected by a far-field uniform flow. Journal of Applied Physics, 2011, 109, 103517. | 1.1 | 9 |
| 1723 | Multiscale Modeling of a Silicon Solar Wafer Manufacturing Process. Computer Aided Chemical Engineering, 2011, , 156-160. | 0.3 | 0 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1724 | Surface Modification and Alloying of Aluminum and Titanium Alloys with Low-Energy, High-Current Electron Beams. Journal of Metallurgy, 2011, 2011, 1-15. | 1.1 | 23 |
| 1725 | Localisation of convection in mushy layers by weak background flow. Journal of Fluid Mechanics, 2011, 675, 518-528. | 1.4 | 8 |
| 1726 | Double step structure and meandering due to the many body interaction at GaN(0001) surface in N-rich conditions. Journal of Applied Physics, 2011, 109, . | 1.1 | 23 |
| 1727 | Criterion for Constitutional Supercooling at Solid-Liquid Interface in Initial Transient Solidification with Varying Solute Content at Interface. Materials Transactions, 2011, 52, 179-188. | 0.4 | 3 |
| 1728 | The evolution of interfacial morphology during coarsening: A comparison between 4D experiments and phase-field simulations. Scripta Materialia, 2011, 64, 394-397. | 2.6 | 46 |
| 1729 | Origin of crosscutting dissolution surfaces in magmatic plagioclase. American Mineralogist, 2011, 96, 319-328. | 0.9 | 1 |
| 1730 | Convective instability of solidification with a phase transition zone. Journal of Experimental and Theoretical Physics, 2011, 112, 596-601. | 0.2 | 1 |
| 1731 | Oscillatory morphological stability for rapid directional solidification: Effect of non-linear liquidus and solidus. Acta Materialia, 2011, 59, 5859-5867. | 3.8 | 10 |
| 1732 | The description of morphologically stable regimes for steady state solidification based on the maximum entropy production rate postulate. Journal of Materials Science, 2011, 46, 6172-6190. | 1.7 | 20 |
| 1733 | Time dependent simulations of the growth of III–V crystals by the liquid phase electroepitaxy. Journal of Crystal Growth, 2011, 318, 351-355. | 0.7 | 3 |
| 1734 | Phase field modeling of morphological instability near grain boundary during directional solidification of a binary alloy: The hump formation. Journal of Crystal Growth, 2011, 324, 296-303. | 0.7 | 11 |
| 1735 | Analysis by synchrotron X-ray radiography of convection effects on the dynamic evolution of the solid–liquid interface and on solute distribution during the initial transient of solidification. Acta Materialia, 2011, 59, 4356-4365. | 3.8 | 100 |
| 1736 | Freeze-dried solid foams prepared from carbon nanotube aqueous suspension: Application to gas diffusion layers of a proton exchange membrane fuel cell. Chemical Engineering and Processing: Process Intensification, 2011, 50, 22-30. | 1.8 | 28 |
| 1737 | Solute trapping-free massive transformation at absolute stability. Acta Materialia, 2011, 59, 1716-1724. | 3.8 | 18 |
| 1738 | Morphological transformation of a crystal–melt interface during unidirectional growth of silicon. Acta Materialia, 2011, 59, 4700-4708. | 3.8 | 47 |
| 1739 | The growth of mixed alkaline-earth fluorides for laser host applications. Progress in Crystal Growth and Characterization of Materials, 2011, 57, 1-41. | 1.8 | 6 |
| 1740 | Formation of metastable phases and nanocomposite structures in rapidly solidified Al–Fe alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5967-5973. | 2.6 | 28 |
| 1741 | Morphological instability of interface, cell and dendrite during directional solidification under strong magnetic field. Journal of Crystal Growth, 2011, 318, 23-27. | 0.7 | 8 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1742 | Global instability and selection of cellular array growth in solidification. Journal of Crystal Growth, 2011, 318, 28-31. | 0.7 | 0 |
| 1743 | In situ analysis of the influence of convection during the initial transient of planar solidification. Journal of Crystal Growth, 2011, 318, 1134-1138. | 0.7 | 17 |
| 1744 | Investigation of thermoelectric magnetic force in solid and its effect on morphological instability in directional solidification. Journal of Crystal Growth, 2011, 324, 217-224. | 0.7 | 5 |
| 1745 | Formation of the solidified microstructure in Mg–Sn binary alloy. Journal of Crystal Growth, 2011, 322, 84-90. | 0.7 | 34 |
| 1746 | Global theory of steady deep-cellular growth in directional solidification. Physical Review E, 2011, 83, 041601. | 0.8 | 9 |
| 1747 | Particle-scale structure in frozen colloidal suspensions from small-angle x-ray scattering. Physical Review E, 2011, 83, 021402. | 0.8 | 15 |
| 1748 | Global stabilities, selection of steady cellular growth, and origin of side branches in directional solidification. Physical Review E, 2011, 83, 061605. | 0.8 | 7 |
| 1749 | Numerical simulation of asymptotic states of the damped Kuramoto-Sivashinsky equation. Physical Review E, 2011, 83, 046702. | 0.8 | 22 |
| 1750 | Capillary-wave model for the solidification of dilute binary alloys. Physical Review E, 2011, 83, 041609. | 0.8 | 15 |
| 1751 | Prediction of the operating point of dendrites growing under coupled thermosolutal control at high growth velocity. Physical Review E, 2011, 83, 061601. | 0.8 | 22 |
| 1752 | Marginal stability analysis of the phase field crystal model in one spatial dimension. Physical Review B, 2011, 83, . | 1.1 | 37 |
| 1753 | Analysing surface roughness evolution in thin films. , 2011, , 60-82. | | 2 |
| 1754 | Critical Free Volume Concentration of Shear Banding Instability in Metallic Glasses. Chinese Physics Letters, 2011, 28, 036201. | 1.3 | 2 |
| 1755 | CMOS highly linear direct-conversion transmitter for WCDMA with fine gain accuracy. Journal of Semiconductors, 2011, 32, 085010. | 2.0 | 0 |
| 1756 | Evolution of as-Cast Microstructure of Mg-Al Alloys with Solute Content and Cooling Rate. Advanced Materials Research, 2011, 409, 362-367. | 0.3 | 2 |
| 1757 | Fundamentals and Engineering of the Czochralski Growth of Semiconductor Silicon Crystals. , 2011, , 81-169. | | 20 |
| 1758 | Thermal Science of Weld Bead Defects: A Review. Journal of Heat Transfer, 2011, 133, . | 1.2 | 36 |
| 1759 | What happens to the initial planar instability when the thermal gradient is increased during directional solidification?. Chinese Physics B, 2011, 20, 108104. | 0.7 | 0 |

ARTICLE IF CITATIONS Formation of the solidified microstructure of Mgâ€"Alâ€"Zn alloy under a low-voltage pulsed magnetic 1760 1.2 15 field. Journal of Materials Research, 2011, 26, 1688-1695. Onset of morphological instability in two binary liquid layers. Physics of Fluids, 2011, 23, 044102. 1761 1.6 Crystal Growth Behaviors of Silicon during Melt Growth Processes. International Journal of 1762 1.4 29 Photoenergy, 2012, 2012, 1-16. The Role of Fe on the Grain Refinement of High Purity Aluminium. Advanced Materials Research, 0, 1763 0.3 538-541, 2264-2268. Laser surface modification of steel and cast iron for corrosion resistance. , 2012, , 3-40. 1764 4 Operating point selection for dendritic growth during rapid solidification. IOP Conference Series: 0.3 Materials Science and Engineering, 2012, 27, 012076. Effects of nonlinear interfacial kinetics and interfacial thermal resistance in planar solidification. 1766 0.8 3 Physical Review E, 2012, 86, 051605. Growth rate distribution of NH4Cl dendrite and its scaling structure. Physical Review E, 2012, 86, 0.8 061603. Influence of natural convection on microstructure evolution during the initial solidification 1768 transient: comparison of phase-field modeling with in situ synchrotron X-ray monitoring data. IOP 0.3 11 Conference Series: Materials Science and Engineering, 2012, 33, 012102. The effect of two-dimensional shear flow on the stability of a crystal interface in a supercooled melt. 1769 Chinese Physics B, 2012, 21, 086401. Precisely rectilinear electro-thermal microactuator using a high-aspect ratio microstructured 1770 2 1.5 Si/SU-8 composite. Journal of Micromechanics and Microengineering, 2012, 22, 115020. Linear stability analysis on a spherical particle growing from a binary melt under the far-field flow. 0.7 Chinese Physics B, 2012, 21, 056401. Effect of transverse magnetic field on the liquid-solid interface stability and morphology of 1772 Al-0.85wt%Cu alloy during directional solidification. IOP Conference Series: Materials Science and 0.3 2 Engineering, 2012, 27, 012048. Finite-sample-size effects on convection in mushy layers. Journal of Fluid Mechanics, 2012, 704, 89-108. 1773 1.4 16 Deep penetration of molten iron into the mantle caused by a morphological instability. Nature, 2012, 1774 13.7 71 492, 243-246. Thermoelectric magnetic force acting on the solid during directional solidification under a static 1775 magnetic field. Applied Physics Letters, 2012, 101, . Lateral Growth Rate of Cells in Melt. Journal of Iron and Steel Research International, 2012, 19, 28-33. 1776 1.4 1 Freeze casting of porous materials: review of critical factors in microstructure evolution. 9.4 301 International Materials Reviews, 2012, 57, 37-60.

| \sim | | | | |
|----------|------|------|-----|------------|
| | ΙΤΔΤ | IV F | | D T |
| <u> </u> | IIAI | IVL | . 0 | |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1778 | Morphology Diagram of Single-Layer Crystal Patterns in Supercooled Poly(ethylene oxide) Ultrathin Films: Understanding Macromolecular Effect of Crystal Pattern Formation and Selection. ACS Macro Letters, 2012, 1, 217-221. | 2.3 | 30 |
| 1779 | Breakdown of chiral symmetry during saturation of the Tayler instability. Physical Review E, 2012, 86, 016313. | 0.8 | 22 |
| 1780 | Solute redistribution during planar growth of intermetallic compound with nil solubility. Intermetallics, 2012, 26, 131-135. | 1.8 | 21 |
| 1781 | Bubbles engulfment and entrapment by cellular and dendritic interfaces during directional solidification. Journal of Crystal Growth, 2012, 338, 256-261. | 0.7 | 16 |
| 1782 | A comparative study on the growth of germanium–silicon single crystals grown by the vertical Bridgman and axial heat processing techniques. Journal of Crystal Growth, 2012, 351, 1-8. | 0.7 | 9 |
| 1783 | On the interest of synchrotron X-ray imaging for the study of solidification in metallic alloys. Comptes Rendus Physique, 2012, 13, 237-245. | 0.3 | 68 |
| 1785 | Self-Generated Fields and Polymer Crystallization. Macromolecules, 2012, 45, 6299-6323. | 2.2 | 28 |
| 1787 | High temperature tensile properties of laser butt-welded plate of Inconel 718 superalloy with ultra-fine grains. Transactions of Nonferrous Metals Society of China, 2012, 22, 2379-2388. | 1.7 | 25 |
| 1788 | Rapid colloidal solidifications under local nonequilibrium diffusion conditions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2012, 376, 3563-3566. | 0.9 | 17 |
| 1790 | Precise Measurements of Dendrite Growth of Ice Crystals in Microgravity. Microgravity Science and Technology, 2012, 24, 245-253. | 0.7 | 40 |
| 1791 | The Sgen Rate Maximization Postulate: Applications to Process-Path Analysis for Solidification and Micropyretic Synthesis. Key Engineering Materials, 0, 521, 79-86. | 0.4 | 6 |
| 1792 | Diffusion-Induced Oscillations of Extended Defects. Physical Review Letters, 2012, 108, 046101. | 2.9 | 12 |
| 1793 | Capillary-wave description of rapid directional solidification. Physical Review E, 2012, 85, 021605. | 0.8 | 9 |
| 1794 | DIRECTED ELECTROCHEMICAL NANOWIRE ASSEMBLY: PRECISE NANOSTRUCTURE ASSEMBLY VIA DENDRITIC SOLIDIFICATION. Modern Physics Letters B, 2012, 26, 1130001. | 1.0 | 19 |
| 1795 | Crystal Growth: Substructure and Recrystallization. , 2012, , . | | 4 |
| 1796 | Phase transformations in an AISI 410S stainless steel observed in directional and laser-induced cooling regimes. Materials Research, 2012, 15, 32-40. | 0.6 | 8 |
| 1797 | Preparation of porous honeycomb monolith from UVâ€curable monomer/dioxane solution via unidirectional freezing and UV irradiation. Journal of Applied Polymer Science, 2012, 125, 2874-2881. | 1.3 | 21 |
| 1798 | Uniform hexagonal graphene film growth on liquid copper surface: Challenges still remain. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E2099; author reply E2100. | 3.3 | 7 |

| | | CITATION RE | PORT | |
|------|---|----------------------------|------|-----------|
| # | Article | | IF | CITATIONS |
| 1799 | Solid-State Dewetting of Thin Films. Annual Review of Materials Research, 2012, 42, 39 | 99-434. | 4.3 | 916 |
| 1800 | Modeling constrained dendrite growth in rapidly directional solidification. Journal of M Science, 2012, 47, 5308-5316. | aterials | 1.7 | 8 |
| 1801 | Dynamics Study on Morphological Stabilities of Cellular Crystal Lateral Wall. Metallurg Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 2018-2 | ical and 030. | 1.1 | 2 |
| 1802 | Quantitatively comparing phase-field modeling with direct real time observation by syr radiography of the initial transient during directional solidification of an Al–Cu alloy. Materialia, 2012, 60, 199-207. | ichrotron X-ray Acta | 3.8 | 53 |
| 1803 | Orientation selection in solidification patterning. Acta Materialia, 2012, 60, 657-663. | | 3.8 | 71 |
| 1804 | Phase-field simulation of solidification morphology in laser powder deposition of Ti– Materialia, 2012, 60, 1633-1646. | Nb alloys. Acta | 3.8 | 150 |
| 1805 | Osmotic convection-driven instability and cellular eutectic growth in binary systems. A 2012, 60, 1689-1694. | cta Materialia, | 3.8 | 8 |
| 1806 | Time-dependent crystallization in magma chambers and lava lakes cooled from above: convection and kinetics on nonlinear dynamics of binary systems. International Journal Mass Transfer, 2012, 55, 1189-1196. | The role of of Heat and | 2.5 | 25 |
| 1807 | Flow-induced morphological instability and solidification with the slurry and mushy lay presence of convection. International Journal of Heat and Mass Transfer, 2012, 55, 319 | ers in the 96-3204. | 2.5 | 57 |
| 1808 | The steady-state solidification scenario of ternary systems: Exact analytical solution of model. International Journal of Heat and Mass Transfer, 2012, 55, 3755-3762. | nonlinear | 2.5 | 12 |
| 1809 | Study on laser beam welding/superplastic forming technology of multi-sheet cylinder s structure for Inconel718 superalloy with ultra-fine grains. Materials & Design, 2012, 39 | andwich 9, 151-161. | 5.1 | 18 |
| 1810 | Morphological determination of forced shear flow rate during directional solidification succinonitrile–1%salol alloy. Materials Letters, 2012, 73, 183-186. | of | 1.3 | 0 |
| 1811 | Analytical description of the quasi-stationary solidification of ternary systems. Russian (Metally), 2012, 2012, 136-145. | Metallurgy | 0.1 | 1 |
| 1812 | Modal decomposition and normal form for hydrodynamic flows: Examples from cellula patterns. European Physical Journal: Special Topics, 2012, 204, 119-131. | r flame | 1.2 | 1 |
| 1813 | Solidification researches using transparent model materials — A review. Science Chin Sciences, 2012, 55, 377-386. | a Technological | 2.0 | 23 |
| 1814 | Experimental and Modeling Studies of the Lamellar Eutectic Growth of Mg-Al Alloy. Me Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 208-21 | tallurgical and 8. | 1.1 | 11 |
| 1815 | Numerical analysis of constitutional supercooling during directional solidification of all Journal of Materials Science, 2012, 47, 3454-3462. | oys. | 1.7 | 4 |
| 1816 | Microstructural Evolution and Solidification Behavior of Al-Mg-Si Alloy in High-Pressure Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 3185-3197. | Die Casting. 2013, 44, | 1.1 | 47 |

ARTICLE IF CITATIONS Qualitative Behavior of Solutions for Thermodynamically Consistent Stefan Problems with Surface 1817 1.1 30 Tension. Archive for Rational Mechanics and Analysis, 2013, 207, 611-667. Morphological Transitions from Dendrites to Nanowires in the Electroless Deposition of Silver. 1.4 Crystal Growth and Design, 2013, 13, 465-469. Construction of an exact solution of time-dependent Ginzburg–Landau equations and determination of the superconducting–normal interface propagation speed in superconductors. Pramana - Journal 1819 0.9 5 of Physics, 2013, 80, 895-901. Crystallization of supercooled water: A level-set-based modeling of the dendrite tip velocity. 2.5 International Journal of Heat and Mass Transfer, 2013, 66, 830-837. Selection of stable growth conditions for the parabolic dendrite tip in crystallization of 1821 0.2 12 multicomponent melts. Technical Physics, 2013, 58, 309-315. Controlled, Defect-Guided, Metal-Nanoparticle Incorporation onto MoS₂ via Chemical and Microwave Routes: Electrical, Thermal, and Structural Properties. Nano Letters, 2013, 13, 4.5 281 4434-4441. On the theory of dendritic growth: Soret and temperature-dependent diffusion effects. Russian 1823 0.1 3 Metallurgy (Metally), 2013, 2013, 123-129. Higher order heat and mass transfer equations and their justification in extended irreversible 1824 0.2 19 thermodynamics. Theoretical Foundations of Chemical Engineering, 2013, 47, 89-103. Metallurgical challenges in microelectronic 3D IC packaging technology for future consumer 1825 2.0 36 electronic products. Science China Technological Sciences, 2013, 56, 1740-1748. In situ experimental observation of the time evolution of a dendritic mushy zone in a fixed 2.1 temperature gradient. Comptes Rendus - Mecanique, 2013, 341, 421-428. Selection criterion for the growing dendritic tip at the inner core boundary. Journal of Physics A: 1827 22 0.7 Mathematical and Theoretical, 2013, 46, 195101. Correlation Between Radial Growth Rate of Cylindrical Solid and Time in Melt. Journal of Iron and 1.4 Steel Research International, 2013, 20, 1-6. A three-dimensional cellular automata model coupled with finite element method and thermodynamic 1829 0.7 23 database for alloy solidification. Journal of Crystal Growth, 2013, 377, 72-77. The nature of oscillations of the crystallization front in a diluted binary melt during the initial 1830 0.2 transient process. Journal of Experimental and Theoretical Physics, 2013, 117, 1024-1031. Solidification dynamics under random external-temperature fluctuations. Russian Metallurgy 1831 0.1 1 (Metally), 2013, 2013, 575-579. The microstructure prediction of magnesium alloy crystal growth in directional solidification. 1.4 Computational Materials Science, 2013, 79, 684-690. Multiscale dendritic needle network model of alloy solidification. Acta Materialia, 2013, 61, 6474-6491. 1833 3.8 60 Space-confined fabrication of silver nanodendrites and their enhanced SERS activity. Nanoscale, 2013, 1834 2.8 5, 4284.

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1835 | Minimization of instabilities in growing interfaces: A variational approach. Physical Review E, 2013, 88, 062404. | 0.8 | 7 |
| 1836 | Modelling the suppression of viscous fingering in elastic-walled Hele-Shaw cells. Journal of Fluid Mechanics, 2013, 731, 162-183. | 1.4 | 60 |
| 1837 | Template-free and filamentary growth of silver nanowires: application to anisotropic conductive transparent flexible electrodes. Nanoscale, 2013, 5, 1864. | 2.8 | 35 |
| 1838 | Modification of liquid/solid interface shape in directionally solidifying Al–Cu alloys by a transverse magnetic field. Journal of Materials Science, 2013, 48, 213-219. | 1.7 | 27 |
| 1839 | Influence of initial solid–liquid interface morphology on further microstructure evolution during directional solidification. Applied Physics A: Materials Science and Processing, 2013, 110, 443-451. | 1.1 | 6 |
| 1840 | The trajectory of subboundary grooves during directional solidification of dilute alloys. Comptes Rendus Physique, 2013, 14, 149-155. | 0.3 | 5 |
| 1841 | Non-equilibrium solute partitioning in a laser re-melted Al–Li–Cu alloy. Acta Materialia, 2013, 61, 7432-7436. | 3.8 | 22 |
| 1842 | Annealing of directionally solidified alloys revisited: No loss of solidification texture in Earth's inner core. Physics of the Earth and Planetary Interiors, 2013, 223, 32-39. | 0.7 | 6 |
| 1843 | Evolution of the solidification front of a binary mixture. Applied Mathematical Modelling, 2013, 37, 3761-3776. | 2.2 | 4 |
| 1844 | Effects of Rodâ€like Particles on the Microstructure and Strength of Porous Silica Nanoparticle Composites. Journal of the American Ceramic Society, 2013, 96, 398-406. | 1.9 | 17 |
| 1845 | Preparation of a unique, multihollowâ€core honeycomb structure via the unidirectional freezing of a binary solvent system. Journal of Applied Polymer Science, 2013, 130, 526-534. | 1.3 | 5 |
| 1846 | Ice crystal interspacing in frozen foods. Journal of Food Engineering, 2013, 116, 622-626. | 2.7 | 43 |
| 1847 | Solidification and segregation behaviors in 6061 aluminum alloy. Metals and Materials International, 2013, 19, 433-438. | 1.8 | 9 |
| 1848 | Interfacial morphology development and solute trapping behavior during rapid solidification of an Al–Li–Cu alloy. Acta Materialia, 2013, 61, 1571-1580. | 3.8 | 37 |
| 1849 | Comparative assessment of Volume-of-Fluid and Level-Set methods by relevance to dendritic ice growth in supercooled water. Computers and Fluids, 2013, 79, 44-52. | 1.3 | 27 |
| 1850 | Modeling dendrite growth in undercooled concentrated multi-component alloys. Acta Materialia, 2013, 61, 4254-4265. | 3.8 | 31 |
| 1851 | The evolution of the growth morphology in Mg–Al alloys depending on the cooling rate during solidification. Acta Materialia, 2013, 61, 4848-4860. | 3.8 | 66 |
| 1852 | The effect of processing parameters and solid concentration on the mechanical and microstructural properties of freeze-casted macroporous hydroxyapatite scaffolds. Materials Science and Engineering C, 2013, 33, 453-460. | 3.8 | 64 |

| # | Article | IF | CITATIONS |
|------|--|--------------------|-----------|
| 1853 | Silicon Wafers for Solar Cells by Horizontal Ribbon Growth. Industrial & Engineering Chemistry Research, 2013, 52, 3239-3246. | 1.8 | 8 |
| 1854 | Molecular weight dependence of crystal pattern transitions of poly(ethylene oxide). Chinese Journal of Polymer Science (English Edition), 2013, 31, 798-808. | 2.0 | 6 |
| 1855 | Hits, Misses and Close Calls: An Image Essay on Pattern Formation inOn Growth and Form. Interdisciplinary Science Reviews, 2013, 38, 74-88. | 1.0 | 3 |
| 1856 | Constitutional Supercooling in Czochralski Growth οf Heavily Doped Silicon Crystals. Acta Physica Polonica A, 2013, 124, 219-226. | 0.2 | 18 |
| 1857 | Morphological instabilities of stratified epithelia: a mechanical instability in tumour formation. New Journal of Physics, 2013, 15, 065011. | 1.2 | 17 |
| 1858 | Analytical Solution of Mushy Zone under Directional Solidification. Advanced Materials Research, 2013, 662, 262-265. | 0.3 | 0 |
| 1859 | Surface instability and mass transfer during the bonding of ice spheres. Philosophical Magazine, 2013, 93, 3177-3193. | 0.7 | 9 |
| 1860 | Introduction to Nonequilibrium Phenomena. , 2013, , 1-59. | | 10 |
| 1861 | Correlation of hardness and corrosion characteristics with crystalline structures of Al–Mg alloys. Physica Scripta, 2013, 88, 065601. | 1.2 | 4 |
| 1862 | Using a continuum model to predict closure time of gaps in intestinal epithelial cell layers. Wound Repair and Regeneration, 2013, 21, 256-265. | 1.5 | 10 |
| 1863 | Simplified Transfer Function of Write Compensation for Phase-Change Optical Disks. Japanese Journal of Applied Physics, 2013, 52, 09LE02. | 0.8 | 0 |
| 1864 | A Thermodynamic Mechanism for PVT Growth Phenomena of SiC Single Crystals. ECS Journal of Solid State Science and Technology, 2013, 2, N3018-N3021. | 0.9 | 9 |
| 1865 | Domain of oscillatory growth in directional solidification of dilute binary alloys. Physical Review E, 2013, 87, 042402. | 0.8 | 6 |
| 1866 | Growth Anomalies in Supramolecular Networks: <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>4</mml:mn><mml:mo>,</mml:mo><mml:msup><mml:mn>4</mml:mn><mml:mo>â€ Acid on Cu(001). Physical Review Letters, 2013, 110, 076101.</mml:mo></mml:msup></mml:math | 22,9 22,100ml:m | oS |
| 1867 | Insights into Polymer Crystallization from Phase-Field Theory. , 2013, , 1-35. | | 5 |
| 1870 | Aromatic Derivatives Based Materials for Optoelectronic Applications. , 0, , . | | 0 |
| 1871 | Flowering of Continuous Casting Process for Steel in Japan and New Fundamental Seeds to the Future. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 2014, 100, 472-484. | 0.1 | 10 |
| 1872 | Orientation evolution of single-crystal superalloys under different solidification interface. Applied Physics A: Materials Science and Processing, 2014, 117, 1971-1975. | 1.1 | 3 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1873 | Microstructural evolution of aluminium–copper alloys during the downward directional solidification process. International Journal of Materials Research, 2014, 105, 168-176. | 0.1 | 3 |
| 1874 | (Invited) Wrinkling Graphene with Bacteria and Functionalization of MoS2 for Electronic Applications. ECS Transactions, 2014, 64, 479-489. | 0.3 | 0 |
| 1875 | Nonlinear analysis of the stability of solidification with a mushy zone. Russian Metallurgy (Metally), 2014, 2014, 606-617. | 0.1 | 4 |
| 1876 | Effect of crucible rotation rate on the growth and macrostructure of multicrystalline silicon. Inorganic Materials, 2014, 50, 1185-1190. | 0.2 | 3 |
| 1877 | A Phase-Field Solidification Model of Almost Pure ITS-90 Fixed Points. International Journal of Thermophysics, 2014, 35, 1109-1126. | 1.0 | 3 |
| 1878 | Orientation-dependent morphological stability of grain boundary groove. Chinese Physics B, 2014, 23, 124702. | 0.7 | 3 |
| 1879 | Dendrite to symmetry-broken dendrite transition in directional solidification of non-axially oriented crystals. Chinese Physics B, 2014, 23, 038104. | 0.7 | 2 |
| 1880 | Chemical Reactions at Moving Surfaces. , 2014, , 853-874. | | 1 |
| 1881 | Casting Simulation Methods. , 2014, , 235-257. | | 3 |
| 1882 | Influence of the solidification temperature range on Gasar structures made from Cu–Mn alloys. International Journal of Materials Research, 2014, 105, 869-874. | 0.1 | 0 |
| 1883 | Non-affine fields in solid–solid transformations: the structure and stability of a product droplet. Journal of Physics Condensed Matter, 2014, 26, 015007. | 0.7 | 3 |
| 1884 | Time resolved electron microscopy for <i>in situ</i> experiments. Applied Physics Reviews, 2014, 1, 041101. | 5.5 | 38 |
| 1885 | Scaling Theory of Two-Phase Dendritic Growth in Undercooled Ternary Melts. Physical Review Letters, 2014, 112, 105502. | 2.9 | 20 |
| 1886 | Dynamic evolution of initial instability during non-steady-state growth. Physical Review E, 2014, 89, 062403. | 0.8 | 9 |
| 1887 | Impact of nucleation on step-meandering instabilities during step-flow growth on vicinal surfaces. Physical Review E, 2014, 89, 032406. | 0.8 | 6 |
| 1888 | Stability of a directional solidification front in subdiffusive media. Physical Review E, 2014, 89, 012408. | 0.8 | 0 |
| 1889 | Directional Solidification Microstructure Control in CM247LC Superalloy. Materials Today: Proceedings, 2014, 1, 3-10. | 0.9 | 14 |
| 1890 | Tuned Mullins-Sekerka instability: Exact results. Physical Review E, 2014, 90, 042403. | 0.8 | 1 |

| # | ARTICLE | IF | CITATIONS |
|------|---|-----|-----------|
| 1891 | Instability of crystal/melt interface including twin boundaries of silicon. Applied Physics Letters, 2014, 104, . | 1.5 | 11 |
| 1892 | Self-organization phenomena during electrochemical formation of nanoclusters in silicon. , 2014, , . | | 0 |
| 1893 | Dendrite growth under forced convection: analysis methods and experimental tests. Physics-Uspekhi, 2014, 57, 771-786. | 0.8 | 96 |
| 1894 | Microstructural investigation of controlled short circuiting gas metal arc welding deposited aluminium–lithium alloy. Canadian Metallurgical Quarterly, 2014, 53, 416-422. | 0.4 | 5 |
| 1895 | The Surface Processes During Crystallization. , 2014, , 187-243. | | 2 |
| 1896 | DECIPHERING THE ATMOSPHERIC COMPOSITION OF WASP-12b: A COMPREHENSIVE ANALYSIS OF ITS DAYSIDE EMISSION. Astrophysical Journal, 2014, 791, 36. | 1.6 | 128 |
| 1897 | Phase field modeling of facet formation during directional solidification of silicon film. Journal of Crystal Growth, 2014, 385, 134-139. | 0.7 | 19 |
| 1898 | Morphological stability analysis for planar interface during rapidly directional solidification of concentrated multi-component alloys. Acta Materialia, 2014, 67, 220-231. | 3.8 | 13 |
| 1899 | Tip-splitting instability and transition to seaweed growth during alloy solidification in anisotropically preferred growth direction. Acta Materialia, 2014, 66, 219-231. | 3.8 | 56 |
| 1900 | Morphological assessment with the maximum entropy production rate (MEPR) postulate. Current Opinion in Chemical Engineering, 2014, 3, 91-98. | 3.8 | 13 |
| 1901 | Microstructure selection in the interdendritic region during directional solidification of a Ni-23at.%Al alloy. Metals and Materials International, 2014, 20, 93-98. | 1.8 | 2 |
| 1902 | The dynamics of rapid fracture: instabilities, nonlinearities and length scales. Reports on Progress in Physics, 2014, 77, 046501. | 8.1 | 79 |
| 1903 | Elastic Instability of a Crystal Growing on a Curved Surface. Science, 2014, 343, 634-637. | 6.0 | 205 |
| 1904 | A Three-Dimensional Cellular Automata Model for Dendrite Growth with Various Crystallographic Orientations During Solidification. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2014, 45, 719-725. | 1.0 | 13 |
| 1905 | The viscous drag on solids moving through solids. AICHE Journal, 2014, 60, 1488-1498. | 1.8 | 7 |
| 1907 | Regularities of the formation of fractal porous clusters in silicon. Russian Microelectronics, 2014, 43, 212-225. | 0.1 | 0 |
| 1908 | A review of lithium deposition in lithium-ion and lithium metal secondary batteries. Journal of Power Sources, 2014, 254, 168-182. | 4.0 | 731 |
| 1909 | Subsecond Annealing of Advanced Materials. Springer Series in Materials Science, 2014, , . | 0.4 | 14 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1910 | Phase-field-crystal simulation of nonequilibrium crystal growth. Physical Review E, 2014, 89, 012405. | 0.8 | 38 |
| 1911 | Laser Powder Deposition. , 2014, , 163-216. | | 33 |
| 1912 | Theory of mass transport in sodium alanate. Journal of Materials Chemistry A, 2014, 2, 4438-4448. | 5.2 | 10 |
| 1913 | Electron–Water Interactions and Implications for Liquid Cell Electron Microscopy. Journal of Physical Chemistry C, 2014, 118, 22373-22382. | 1.5 | 519 |
| 1914 | Onset of the initial instability during the solidification of welding pool of aluminum alloy under transient conditions. Journal of Crystal Growth, 2014, 402, 203-209. | 0.7 | 23 |
| 1915 | Periodic layer formation in the growth of dilute binary alloys. Physica A: Statistical Mechanics and Its Applications, 2014, 413, 394-399. | 1.2 | 5 |
| 1916 | Growth Pattern Dependence of Tetrahydrofuran Hydrates in Glass Beads of Two Sizes on Growth Rate and Glass Bead Mixing Ratio. Crystal Growth and Design, 2014, 14, 3813-3824. | 1.4 | 4 |
| 1917 | Self-assembly via branching morphologies in nematic liquid-crystal nanocomposites. Physical Review E, 2014, 90, 020501. | 0.8 | 11 |
| 1918 | Structure transitions near liquidus and the nucleation of undercooled melt of Ni–Cr–W superalloy. Physica B: Condensed Matter, 2014, 454, 8-14. | 1.3 | 4 |
| 1919 | Complete reconfiguration of dendritic gold. Nanoscale, 2014, 6, 833-841. | 2.8 | 7 |
| 1920 | Solidification. , 2014, , 639-850. | | 8 |
| 1921 | Migration of δ/γ Interface in Low Carbon Steels during Continuous Cooling. Journal of Iron and Steel Research International, 2014, 21, 855-861. | 1.4 | 3 |
| 1922 | Mean Curvature, Threshold Dynamics, and Phase Field Theory on Finite Graphs. Milan Journal of Mathematics, 2014, 82, 3-65. | 0.7 | 59 |
| 1923 | The Evolution of As-cast Microstructure of Ternary Mg-Al-Zn Alloys: An Experimental and Modeling Study. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 3596-3608. | 1.1 | 21 |
| 1925 | Correlating Polymer Crystals via Self-Induced Nucleation. Physical Review Letters, 2014, 112, 237801. | 2.9 | 36 |
| 1926 | Effect of nucleation undercooling on the kinetics and mechanism of the peritectic phase transition in steel. Acta Materialia, 2014, 81, 111-120. | 3.8 | 63 |
| 1927 | Patterned Ni–P Alloy Films Prepared by "Reducing–Discharging―Process and the Hydrophobic Property. ACS Applied Materials & Interfaces, 2014, 6, 1053-1060. | 4.0 | 23 |
| 1928 | Rapidly solidified U–6wt%Nb powders for dispersion-type nuclear fuels. Journal of Nuclear Materials, 2014, 448, 72-79. | 1.3 | 12 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1929 | Phase-field simulations and geometrical characterization of cellular solidification fronts. Journal of Crystal Growth, 2014, 385, 140-147. | 0.7 | 22 |
| 1930 | Phase selection and microstructural formation of rapidly directionally solidified peritectic Fe–Ni alloys by laser surface remelting. Journal of Alloys and Compounds, 2014, 585, 260-266. | 2.8 | 8 |
| 1931 | Numerical investigation of heat and mass transfer during vertical Bridgman crystal growth under rotational vibrations. Journal of Crystal Growth, 2014, 385, 82-87. | 0.7 | 13 |
| 1932 | Formation of Fe-based glassy matrix composite coatings by laser processing. Surface and Coatings Technology, 2014, 240, 336-343. | 2.2 | 56 |
| 1933 | Grain Refinement of Ni-Cr-W Based Superalloy by Near Liquidus Casting. Rare Metal Materials and Engineering, 2014, 43, 1-5. | 0.8 | 8 |
| 1934 | Microstructural evolution in Mg–Zn alloys during solidification: An experimental and simulation study. Journal of Crystal Growth, 2014, 394, 28-38. | 0.7 | 28 |
| 1935 | Three-dimensional phase field modeling of silicon thin-film growth during directional solidification: Facet formation and grain competition. Journal of Crystal Growth, 2014, 401, 740-747. | 0.7 | 21 |
| 1936 | In situ transmission electron microscopy of crystal growth-mode transitions during rapid solidification of a hypoeutectic Al–Cu alloy. Acta Materialia, 2014, 65, 56-68. | 3.8 | 87 |
| 1937 | Phase field study of the tip operating state of a freely growing dendrite against convection using a novel parallel multigrid approach. Journal of Computational Physics, 2014, 257, 278-297. | 1.9 | 35 |
| 1938 | Adaptive phase field modeling of morphological instability and facet formation during directional solidification of SiGe alloys. Journal of Crystal Growth, 2014, 385, 44-48. | 0.7 | 11 |
| 1940 | Morphological instability of a stressed solid cylinder in the solidification and melting regimes. Journal of Crystal Growth, 2014, 402, 113-118. | 0.7 | 2 |
| 1941 | Cryogenic EBSD reveals structure of directionally solidified ice–polymer composite. Materials Characterization, 2014, 93, 184-190. | 1.9 | 19 |
| 1942 | Basic thermodynamics and kinetics of phase transformations. , 0, , 1-2. | | 0 |
| 1943 | Effects of diffusion and nucleation on phase transformations. , 0, , 96-124. | | 0 |
| 1944 | The atomic origins of thermodynamics and kinetics. , 0, , 125-126. | | 1 |
| 1945 | Atom movements with the vacancy mechanism. , 0, , 211-244. | | 0 |
| 1946 | Types of phase transformations. , 0, , 245-246. | | 0 |
| 1947 | Phase field theory. , 0, , 315-331. | | 0 |

| # 1948 | ARTICLE Method of concentration waves and chemical ordering. , 0, , 332-354. | IF | CITATIONS 0 |
|-----------|---|-----|----------------|
| 1949 | Thermodynamics of nanomaterials. , 0, , 383-403. | | 0 |
| 1950 | Magnetic and electronic phase transitions. , 0, , 404-431. | | 0 |
| 1952 | Degenerate Ising model for atomistic simulation of crystal-melt interfaces. Journal of Chemical Physics, 2014, 140, 074704. | 1.2 | 6 |
| 1953 | Morphological stability during solidification of silicon incorporating metallic impurities. Journal of Applied Physics, 2014, 115, 163516. | 1.1 | 15 |
| 1954 | Free dendritic growth model incorporating interfacial nonisosolutal nature due to normal velocity variation. Transactions of Nonferrous Metals Society of China, 2015, 25, 3363-3369. | 1.7 | 5 |
| 1955 | Diffusion-controlled growth rate of stepped interfaces. Physical Review E, 2015, 92, 012404. | 0.8 | 5 |
| 1956 | Smoothed particle hydrodynamics simulations of evaporation and explosive boiling of liquid drops in microgravity. Physical Review E, 2015, 92, 013021. | 0.8 | 15 |
| 1957 | Oscillatory cellular patterns in three-dimensional directional solidification. Physical Review E, 2015, 92, 042401. | 0.8 | 39 |
| 1959 | Partial melting of a Pbâ€Sn mushy layer due to heating from above, and implications for regional melting of Earth's directionally solidified inner core. Geophysical Research Letters, 2015, 42, 7046-7053. | 1.5 | 6 |
| 1960 | A theory on the icing evolution of supercooled water near solid substrate. International Journal of Heat and Mass Transfer, 2015, 91, 1217-1236. | 2.5 | 44 |
| 1961 | Singleâ€Phase Filamentary Cellular Breakdown Via Laserâ€Induced Solute Segregation. Advanced Functional Materials, 2015, 25, 4642-4649. | 7.8 | 23 |
| 1962 | A Three Dimensional Cellular Automata Model for Dendrite Growth in Non-Equilibrium Solidification of Binary Alloy. Steel Research International, 2015, 86, 1490-1497. | 1.0 | 14 |
| 1963 | Organic Semiconductors for Non-Linear Optical Applications. , 2015, , . | | 1 |
| 1964 | A mixed formulation of the Stefan problem with surface tension. Interfaces and Free Boundaries, 2016, 17, 427-464. | 0.2 | 5 |
| 1965 | Impact of Supercooled Liquid Drops onto Cold Solid Substrates. , 0, , . | | 1 |
| 1966 | Heredity of medium-range order structure from melts to the microstructure of Ni–Cr–W superalloy. Applied Physics A: Materials Science and Processing, 2015, 120, 183-188. | 1.1 | 6 |
| 1967 | Towards modelling of initial and final stages of supercooled water solidification. International Journal of Thermal Sciences, 2015, 92, 150-161. | 2.6 | 23 |
| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 1968 | Lithiation of ZnO nanowires studied by in-situ transmission electron microscopy and theoretical analysis. Mechanics of Materials, 2015, 91, 313-322. | 1.7 | 32 |
| 1969 | Energy-saving continuous fractionation and deep purification of organic materials by zonal melting. Coke and Chemistry, 2015, 58, 353-361. | 0.0 | 1 |
| 1970 | Stability of the surface of an elastically strained multicomponent film in a system with chemical reactions. Physics of the Solid State, 2015, 57, 2524-2531. | 0.2 | 11 |
| 1971 | Physical processes causing the formation of penitentes. Physical Review E, 2015, 92, 033015. | 0.8 | 31 |
| 1972 | Concurrent Droplet Coalescence and Solidification on Surfaces With Various Wettabilities. Journal of Fluids Engineering, Transactions of the ASME, 2015, 137, . | 0.8 | 27 |
| 1973 | Initial transient behavior in directional solidification of a bulk transparent model alloy in a cylinder. Acta Materialia, 2015, 85, 362-377. | 3.8 | 40 |
| 1974 | Interfacial morphology evolution in directionally solidified Al-1.5%Cu alloy. Transactions of Nonferrous Metals Society of China, 2015, 25, 405-411. | 1.7 | 10 |
| 1975 | A Sharp Computational Method for the Simulation of the Solidification of Binary Alloys. Journal of Scientific Computing, 2015, 63, 330-354. | 1.1 | 31 |
| 1976 | Influence of solutal convection on solute distribution of melt during preparation of directionally solidified Sn–36 at.%Ni peritectic alloy. International Journal of Heat and Mass Transfer, 2015, 84, 73-79. | 2.5 | 13 |
| 1977 | Formation of cellular structure in SiGe layers under nanosecond laser irradiation. Technical Physics Letters, 2015, 41, 21-24. | 0.2 | 1 |
| 1978 | Microstructural evolution and mechanical properties of laser melting deposited Ti–6.5Al–3.5Mo–1.5Zr–0.3Si titanium alloy. Transactions of Nonferrous Metals Society of China, 2015, 25, 1856-1864. | 1.7 | 33 |
| 1979 | Influence of solidification on the impact of supercooled water drops onto cold surfaces. Experiments in Fluids, 2015, 56, 1. | 1.1 | 37 |
| 1980 | Phase-field simulation of tilted growth of dendritic arrays during directional solidification. International Journal of Heat and Mass Transfer, 2015, 90, 911-921. | 2.5 | 31 |
| 1981 | Influence of cryogenic drying conditions on hierarchical porous structure of aluminum oxide systems. Microporous and Mesoporous Materials, 2015, 218, 7-14. | 2.2 | 12 |
| 1982 | Inner Core Dynamics. , 2015, , 297-316. | | 6 |
| 1983 | Focus on the physics of cancer. New Journal of Physics, 2015, 17, 055011. | 1.2 | 9 |
| 1984 | Cellular automaton-based study of factors that affect dynamic solid phase transformation kinetics. Applied Mathematical Modelling, 2015, 39, 5058-5072. | 2.2 | 9 |
| 1985 | High cooling rate cells, dendrites, microstructural spacings and microhardness in a directionally solidified Al–Mg–Si alloy. Journal of Alloys and Compounds, 2015, 636, 145-149. | 2.8 | 48 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 1986 | Preparation of poly (Lâ€lactic acid) with aligned structures by unidirectional freezing. Polymers for Advanced Technologies, 2015, 26, 606-612. | 1.6 | 20 |
| 1987 | Directionally aligned macroporous SiOC via freeze casting of preceramic polymers. Journal of the European Ceramic Society, 2015, 35, 2225-2232. | 2.8 | 106 |
| 1988 | Non-equilibrium Solidification and Microsegregation Mechanism Based on Interface Evolution and Discrete Crystal Growth. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 549-555. | 1.1 | 10 |
| 1989 | An Investigation of High-Temperature Precipitation in Powder-Metallurgy, Gamma/Gamma-Prime Nickel-Base Superalloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 1715-1730. | 1.1 | 46 |
| 1990 | Phase-Field Modeling of Microstructure Evolution in Electron Beam Additive Manufacturing. Jom, 2015, 67, 1176-1182. | 0.9 | 98 |
| 1991 | Effect of heat source on the growth of dendritic drying patterns. Pramana - Journal of Physics, 2015, 84, 387-394. | 0.9 | 0 |
| 1992 | Directional Growth of Tin Crystals Controlled by Combined Solute Concentration Gradient Field and Static Magnetic Field. Acta Metallurgica Sinica (English Letters), 2015, 28, 725-732. | 1.5 | 5 |
| 1993 | The stage of nucleation of supercritical droplets with thermal effects in the regime of nonstationary diffusion and heat transfer. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 483, 307-315. | 2.3 | 11 |
| 1994 | Effects of physical parameters on the cell-to-dendrite transition in directional solidification. Chinese Physics B, 2015, 24, 078108. | 0.7 | 1 |
| 1995 | Mathematical modeling of a mushy layer at the inner core boundary of the Earth. Part 1. Analytical solutions. AIP Conference Proceedings, 2015, , . | 0.3 | 1 |
| 1996 | Understanding the effects of strain on morphological instabilities of a nanoscale island during heteroepitaxial growth. Journal of Applied Physics, 2015, 118, 035304. | 1.1 | 2 |
| 1997 | Reactive Interfaces in Direct Numerical Simulation of Pore-Scale Processes. Reviews in Mineralogy and Geochemistry, 2015, 80, 461-481. | 2.2 | 58 |
| 1998 | Solidification of Single-Phase Alloys; Cells and Dendrites. , 2015, , 145-196. | | 0 |
| 1999 | Tip-splitting instability in directional solidification based on bias field method. Chinese Physics B, 2015, 24, 078107. | 0.7 | 5 |
| 2000 | Surface modification of low activation ferritic–martensitic steel EK-181 (Rusfer) by high temperature pulsed plasma flows. Nuclear Instruments & Methods in Physics Research B, 2015, 365, 218-221. | 0.6 | 6 |
| 2001 | Effect of Surface Energy Anisotropy on the Stability of Growth Fronts in Multiphase Alloys. Transactions of the Indian Institute of Metals, 2015, 68, 1053-1057. | 0.7 | 9 |
| 2002 | On melt concentration at the solid/liquid interface during preparation of directionally solidified Sn–36 at.%Ni peritectic alloy. Fluid Phase Equilibria, 2015, 387, 73-80. | 1.4 | 7 |
| 2003 | Analysis for free dendritic growth model incorporating the nonisothermal nature of solid–liquid interface. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 237-240. | 0.9 | 5 |

| # 2004 | ARTICLE Numerical Simulation of Solidification Structure of ESR Ingot Using Cellular Automaton Method. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2015, 46, 800-812. | IF 1.0 | CITATIONS 9 |
|-----------|---|-----------|----------------|
| 2005 | Fast growth of thin multiâ€crystalline silicon ribbons by the RST method. Crystal Research and Technology, 2015, 50, 101-114. | 0.6 | 8 |
| 2006 | A Volume-of-Fluid method with interface reconstruction for ice growth in supercooled water. Journal of Computational Physics, 2015, 282, 98-112. | 1.9 | 13 |
| 2007 | Quantitative analysis by in situ synchrotron X-ray radiography of the evolution of the mushy zone in a fixed temperature gradient. Journal of Crystal Growth, 2015, 411, 88-95. | 0.7 | 26 |
| 2008 | Snow and Ice Crystal Growth. , 2015, , 1061-1112. | | 9 |
| 2009 | Dendritic Growth. , 2015, , 669-722. | | 9 |
| 2010 | A comparative study of dendritic growth by using the extended Cahn–Hilliard model and the conventional phase-field model. Acta Materialia, 2015, 84, 55-64. | 3.8 | 10 |
| 2011 | Kinetics of triple-junctions in eutectic solidification: a sharp interface model. Journal of Materials Science, 2015, 50, 176-188. | 1.7 | 9 |
| 2012 | Crystal Growth of Quasicrystals. , 2015, , 1113-1156. | | 3 |
| 2013 | Grain Growth in the Melt. , 2015, , 723-748. | | 3 |
| 2014 | Morphological Stability. , 2015, , 595-630. | | 4 |
| 2015 | An extended free dendritic growth model incorporating the nonisothermal and nonisosolutal nature of the solid–liquid interface. Acta Materialia, 2015, 83, 310-317. | 3.8 | 15 |
| 2016 | Solidification – Models and Simulations. , 2016, , . | | 1 |
| 2017 | A new technique for numerical simulation of dendritic solidification using a meshfree interface finite element method. International Journal for Numerical Methods in Engineering, 2016, 107, 813-852. | 1.5 | 3 |
| 2018 | Morphology evolution of the interface between different mushy zones of a Sn-Ni peritectic alloy in a temperature gradient. Materials Letters, 2016, 182, 110-113. | 1.3 | 3 |
| 2019 | Flow-Directed Crystallization for Printed Electronics. Accounts of Chemical Research, 2016, 49, 2756-2764. | 7.6 | 83 |
| 2020 | Crystal Growth, Bulk: Theory and Models. , 2016, , . | | 0 |
| 2021 | Invited Article: Plasmonic growth of patterned metamaterials with fractal geometry. APL Photonics, 2016, 1, . | 3.0 | 11 |

| # | | IF | CITATIONS |
|-----------|--|-----|-----------|
| T 2022 | Degenerate seaweed to tilted dendrite transition and their growth dynamics in directional solidification of non-axially oriented crystals: a phase-field study. Scientific Reports, 2016, 6, 26625 | 1.6 | 50 |
| 2023 | The effect of doping on low temperature growth of high quality GaAs nanowires on polycrystalline films. Nanotechnology, 2016, 27, 495605. | 1.3 | 3 |
| 2024 | Twin-mediated crystal growth. Journal of Materials Research, 2016, 31, 2936-2947. | 1.2 | 15 |
| 2025 | Interface instability modes in freezing colloidal suspensions: revealed from onset of planar instability. Scientific Reports, 2016, 6, 23358. | 1.6 | 10 |
| 2026 | Effect of anisotropy on deep cellular crystal growth in directional solidification. Modern Physics Letters B, 2016, 30, 1650205. | 1.0 | 2 |
| 2027 | Interfacial undercooling in solidification of colloidal suspensions: analyses with quantitative measurements. Scientific Reports, 2016, 6, 28434. | 1.6 | 28 |
| 2028 | Non-monotonic changes in critical solidification rates for stability of liquid-solid interfaces with static magnetic fields. Scientific Reports, 2016, 6, 20598. | 1.6 | 6 |
| 2029 | Laser hyperdoping silicon for enhanced infrared optoelectronic properties. Applied Physics Reviews, 2016, 3, 031104. | 5.5 | 57 |
| 2030 | Morphological instability of spherical nano iron-rich crystal in copper melt. Materials Letters, 2016, 172, 125-127. | 1.3 | 5 |
| 2031 | Morphological instability of a solid sphere of dilute ternary alloy growing by diffusion from its melt. Journal of Crystal Growth, 2016, 448, 17-20. | 0.7 | 7 |
| 2032 | Fluid dynamics in crystal growth: The good, the bad, and the ugly. Progress in Crystal Growth and Characterization of Materials, 2016, 62, 286-301. | 1.8 | 16 |
| 2033 | Polymer Membranes with Vertically Oriented Pores Constructed by 2D Freezing at Ambient Temperature. ACS Applied Materials & Interfaces, 2016, 8, 14174-14181. | 4.0 | 20 |
| 2034 | Dynamic stability of detached solidification. Journal of Crystal Growth, 2016, 444, 1-8. | 0.7 | 2 |
| 2035 | Effects of thermal cycles on microstructure evolution of 2219-Al during GTA-additive manufacturing. International Journal of Advanced Manufacturing Technology, 2016, 87, 2615-2623. | 1.5 | 54 |
| 2036 | Solid-State Synthesized Nanostructured Au Dendritic Aggregates Towards Surface-Enhanced Raman Spectroscopy. Journal of Electronic Materials, 2016, 45, 2815-2825. | 1.0 | 3 |
| 2037 | Effect of low-angle grain boundaries on morphology and variant selection of grain boundary allotriomorphs and WidmanstAteten side-plates. Acta Materialia, 2016, 112, 347-360. | 3.8 | 47 |
| 2038 | Does non-hydrostatic stress influence the equilibrium of metamorphic reactions?. Earth-Science Reviews, 2016, 163, 190-233. | 4.0 | 25 |
| 2039 | Analysis of the traveling heater method for the growth of cadmium telluride. Journal of Crystal Growth, 2016, 454, 45-58. | 0.7 | 27 |

| # | Article | IF | CITATIONS |
|------|--|------|-----------|
| 2040 | Core solidification and dynamo evolution in a mantleâ€stripped planetesimal. Journal of Geophysical Research E: Planets, 2016, 121, 2-20. | 1.5 | 34 |
| 2041 | Understanding the role of mechanics in energy materials: A perspective. Extreme Mechanics Letters, 2016, 9, 347-352. | 2.0 | 47 |
| 2042 | Morphological stability of a solid–liquid interface growing in a cylindrical mold. Journal of Crystal Growth, 2016, 455, 19-28. | 0.7 | 1 |
| 2043 | Size-dependent microstructures in rapidly solidified uranium niobium powder particles. Journal of Nuclear Materials, 2016, 479, 1-10. | 1.3 | 5 |
| 2044 | Laser surface treatment of biomedical alloys. , 2016, , 35-75. | | 12 |
| 2045 | 4D synchrotron X-ray tomographic quantification of the transition from cellular to dendrite growth during directional solidification. Acta Materialia, 2016, 117, 160-169. | 3.8 | 98 |
| 2046 | Patterning and pattern selection in a surface layer: Feedback between point defects population and surface layer temperature variations. Physica A: Statistical Mechanics and Its Applications, 2016, 463, 152-162. | 1.2 | 5 |
| 2047 | Solidification of Suspended Colloids at Nonplanar Interfaces. Macromolecular Symposia, 2016, 365, 17-31. | 0.4 | 1 |
| 2048 | CO ₂ Laserâ€Induced Directional Recrystallization to Produce Single Crystal Siliconâ€Core Optical Fibers with Low Loss. Advanced Optical Materials, 2016, 4, 1004-1008. | 3.6 | 87 |
| 2049 | Experimental and numerical investigation of the horizontal ribbon growth process. Journal of Crystal Growth, 2016, 453, 163-172. | 0.7 | 16 |
| 2050 | Low artificial anisotropy cellular automaton model and its applications to the cell-to-dendrite transition in directional solidification. Materials Discovery, 2016, 3, 17-28. | 3.3 | 7 |
| 2051 | In Situ Environmental TEM in Imaging Gas and Liquid Phase Chemical Reactions for Materials Research. Advanced Materials, 2016, 28, 9686-9712. | 11.1 | 124 |
| 2052 | Moving Interfaces and Quasilinear Parabolic Evolution Equations. Monographs in Mathematics, 2016, , | 1.3 | 168 |
| 2053 | Dynamical instability of the evaporation front in low-permeability geothermal reservoirs. Doklady Physics, 2016, 61, 297-300. | 0.2 | 0 |
| 2054 | Stress Induced Branching of Growing Crystals on Curved Surfaces. Physical Review Letters, 2016, 116, 135502. | 2.9 | 26 |
| 2055 | Real time and in situ observation of graphene growth on liquid metal surfaces via a carbon segregation method using high-temperature confocal laser scanning microscopy. RSC Advances, 2016, 6, 101235-101241. | 1.7 | 9 |
| 2057 | Mathematical Modeling of Morphogenesis in Living Materials. Lecture Notes in Mathematics, 2016, , 211-274. | 0.1 | 0 |
| 2058 | Effect of Nb on the Growth Behavior of Co3Sn2 Phase in Undercooled Co-Sn Melts. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 6187-6196. | 1.1 | 5 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2059 | Laser recrystallization and inscription of compositional microstructures in crystalline SiGe-core fibres. Nature Communications, 2016, 7, 13265. | 5.8 | 91 |
| 2060 | Stabilizing electrodeposition in elastic solid electrolytes containing immobilized anions. Science Advances, 2016, 2, e1600320. | 4.7 | 228 |
| 2061 | Morphological instability of an evaporation front moving in a geothermal reservoir. Fluid Dynamics, 2016, 51, 776-783. | 0.2 | 3 |
| 2062 | Microstructure and property of directionally solidified Ni–Si hypereutectic alloy. Applied Physics A: Materials Science and Processing, 2016, 122, 1. | 1.1 | 7 |
| 2063 | Modeling of eutectic dendrite growth in undercooled binary alloys. Journal of Materials Science, 2016, 51, 2141-2152. | 1.7 | 10 |
| 2064 | Effect of Growth Rate on the Microstructure and Microhardness in a Directionally Solidified Al-Zn-Mg Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3040-3051. | 1.1 | 19 |
| 2065 | Fundamentals and engineering of defects. Progress in Crystal Growth and Characterization of Materials, 2016, 62, 89-110. | 1.8 | 22 |
| 2067 | Composition-dependent phase substitution in directionally solidified Sn-22at.%Ni peritectic alloy. Journal of Materials Science, 2016, 51, 1512-1521. | 1.7 | 14 |
| 2068 | Thermal Parameters and Microstructural Development in Directionally Solidified Zn-Rich Zn-Mg Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3052-3064. | 1.1 | 18 |
| 2069 | Microstructure Evolution and Rapid Solidification Behavior of Blended Nickel-Based Superalloy Powders Fabricated by Laser Powder Deposition. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 3771-3780. | 1.1 | 7 |
| 2070 | Growth rate and composition of directionally solidified intermetallic TiAl–Nb alloys with different solidification conditions. Rare Metals, 2016, 35, 54-64. | 3.6 | 2 |
| 2071 | Selection criterion of a stable dendrite growth in rapid solidification. International Journal of Heat and Mass Transfer, 2016, 101, 789-799. | 2.5 | 39 |
| 2072 | A framework for studying dynamics and stability of diffusive–reactive interfaces with application to Cu ₆ Sn ₅ intermetallic compound growth. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20160134. | 1.0 | 3 |
| 2073 | Effect of a High Magnetic Field on Microstructures of Ni-Based Single Crystal Superalloy During Seed Melt-Back. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2016, 47, 828-833. | 1.0 | 18 |
| 2074 | Multiple Twinning and Stacking Faults in Silver Dendrites. Crystal Growth and Design, 2016, 16, 467-474. | 1.4 | 13 |
| 2075 | Thermoelectric Magnetohydrodynamic Flows and Their Induced Change of Solid–Liquid Interface Shape in Static Magnetic Field-Assisted Directional Solidification. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 1169-1179. | 1.1 | 37 |
| 2076 | Time-Resolved In Situ Measurements During Rapid Alloy Solidification: Experimental Insight for Additive Manufacturing. Jom, 2016, 68, 985-999. | 0.9 | 53 |
| 2077 | Growing Single Crystals with a Low Melt Height and an Axial Vibration. Crystal Growth and Design, 2016, 16, 2429-2440. | 1.4 | 3 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2078 | Structure of a mushy layer under hypergravity with implications for Earth's inner core. Geophysical Journal International, 2016, 204, 1729-1755. | 1.0 | 30 |
| 2079 | Morphological Study of Directionally Freeze-Cast Nickel Foams. Metallurgical and Materials Transactions E, 2016, 3, 46-54. | 0.5 | 9 |
| 2080 | In situ observation of solidification patterns in diffusive conditions. Acta Materialia, 2016, 108, 325-346. | 3.8 | 71 |
| 2081 | Hierarchical multi-scale microstructural evolution in an as-cast Al2CuCrFeNi2 complex concentrated alloy. Intermetallics, 2016, 71, 31-42. | 1.8 | 31 |
| 2082 | A fundamental limitation on growth rates in the traveling heater method. Journal of Crystal Growth, 2016, 452, 12-16. | 0.7 | 12 |
| 2083 | Colloidal assembly by ice templating. Faraday Discussions, 2016, 186, 61-76. | 1.6 | 21 |
| 2084 | Eutectic colony formation in systems with interfacial energy anisotropy: A phase field study. Computational Materials Science, 2017, 130, 109-120. | 1.4 | 19 |
| 2085 | 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. | 2.8 | 61 |
| 2086 | The evolution mechanism of boron nanoparticles from sphere into petal-like morphologies in copper melts. Materials Letters, 2017, 189, 240-242. | 1.3 | 3 |
| 2087 | The Role of Si and Cu Alloying Elements on the Dendritic Growth and Microhardness in Horizontally Solidified Binary and Multicomponent Aluminum-Based Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 1163-1175. | 1.1 | 14 |
| 2088 | Understanding the Freezing of Colloidal Suspensions: Crystal Growth and Particle Redistribution. Engineering Materials and Processes, 2017, , 91-170. | 0.2 | 3 |
| 2089 | Ice-Templating: Processing Routes, Architectures, and Microstructures. Engineering Materials and Processes, 2017, , 171-252. | 0.2 | 1 |
| 2090 | Morphological Stability of δ-Ferrite/γ Interphase Boundary in Carbon Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 1551-1561. | 1.1 | 1 |
| 2091 | Laser Additive Manufacturing of Magnetic Materials. Jom, 2017, 69, 532-543. | 0.9 | 78 |
| 2092 | Accelerated onset of cellular breakdown at increased solidification speed after laser melting of indium in silicon. Journal of Applied Physics, 2017, 121, . | 1.1 | 2 |
| 2093 | Microstructure selection in thin-sample directional solidification of an Al-Cu alloy: In situ X-ray imaging and phase-field simulations. Acta Materialia, 2017, 129, 203-216. | 3.8 | 131 |
| 2094 | Instabilities in solidification of multi-component alloys. Journal of Crystal Growth, 2017, 467, 162-171. | 0.7 | 9 |
| 2095 | Anisotropic compressive properties of porous <scp>CNT</scp> / <scp>SiC</scp> composites produced by direct matrix infiltration of <scp>CNT</scp> aerogel. Journal of the American Ceramic Society, 2017, 100, 2243-2252. | 1.9 | 19 |

| | | CITATION REPORT | | |
|------|--|------------------------|-----|-----------|
| # | Article | | IF | CITATIONS |
| 2096 | Neutron stars in the laboratory. International Journal of Modern Physics D, 2017, 26, 1 | 730015. | 0.9 | 42 |
| 2097 | A phase field model for snow crystal growth in three dimensions. Npj Computational N 3, . | laterials, 2017, | 3.5 | 54 |
| 2098 | Application of finite element, phase-field, and CALPHAD-based methods to additive ma Ni-based superalloys. Acta Materialia, 2017, 139, 244-253. | nufacturing of | 3.8 | 294 |
| 2099 | Electron Beam Effects in Liquid Cell TEM and STEM. , 0, , 140-163. | | | 12 |
| 2100 | Suspension- and solution-based freeze casting for porous ceramics. Journal of Material 2017, 32, 3372-3382. | s Research, | 1.2 | 46 |
| 2101 | Ice Layer Spreading along a Solid Substrate during Solidification of Supercooled Water and Modeling. Langmuir, 2017, 33, 4870-4877. | : Experiments | 1.6 | 34 |
| 2102 | Microstructures and Grain Refinement of Additive-Manufactured Ti-xW Alloys. Metallur Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 3594-30 | gical and 605. | 1.1 | 61 |
| 2104 | Confined in-fiber solidification and structural control of silicon and siliconâ´germaniun microparticles. Proceedings of the National Academy of Sciences of the United States 114, 7240-7245. | ו of America, 2017, | 3.3 | 39 |
| 2105 | Convection Effects During Bulk Transparent Alloy Solidification in DECLIC-DSI and Phase Simulations in Diffusive Conditions. Jom, 2017, 69, 1280-1288. | se-Field | 0.9 | 7 |
| 2106 | On the theory of unsteady-state crystallization with a mushy layer. IOP Conference Ser Science and Engineering, 2017, 192, 012003. | ies: Materials | 0.3 | 0 |
| 2107 | On the primary spacing and microsegregation of cellular dendrites in laser deposited N Modelling and Simulation in Materials Science and Engineering, 2017, 25, 065002. | i–Nb alloys. | 0.8 | 106 |
| 2108 | Effect of temperature on graphene grown by chemical vapor deposition. Journal of Mar 2017, 52, 8348-8356. | cerials Science, | 1.7 | 55 |
| 2109 | Physical Dynamics of Ice Crystal Growth. Annual Review of Materials Research, 2017, 4 | 7, 271-295. | 4.3 | 110 |
| 2110 | Magnetohydrodynamic stationary and oscillatory convective stability in a mushy layer alloy solidification. Applied Mathematical Modelling, 2017, 48, 233-249. | during binary | 2.2 | 5 |
| 2111 | Controlled growth and form of precipitating microsculptures. Science, 2017, 355, 139 | 5-1399. | 6.0 | 66 |
| 2112 | Researches on the Temperature Field during the Process of Reparation by Laser Claddin Simulation and Experiments. Materials Science Forum, 2017, 893, 281-288. | ng through | 0.3 | 0 |
| 2113 | Preliminary Experimental Study of Laser Cladding Repair on Directionally Solidified Blac Science Forum, 2017, 893, 289-296. | les. Materials | 0.3 | 1 |
| 2114 | A review of dendritic growth during solidification: Mathematical modeling and numeric simulations. Renewable and Sustainable Energy Reviews, 2017, 74, 1064-1079. | al | 8.2 | 57 |

| # | Article | IF | Citations |
|------|---|------|-----------|
| 2115 | Theoretical and numerical investigation of diffusive instabilities in multi-component alloys. Journal of Crystal Growth, 2017, 459, 1-12. | 0.7 | 7 |
| 2116 | Penitentes as the origin of the bladed terrain of Tartarus Dorsa on Pluto. Nature, 2017, 541, 188-190. | 13.7 | 43 |
| 2117 | Electrokinetic Control of Viscous Fingering. Physical Review Letters, 2017, 119, 174501. | 2.9 | 37 |
| 2118 | Towards optimization of ACRT schedules applied to the gradient freeze growth of cadmium zinc telluride. Journal of Crystal Growth, 2017, 480, 126-131. | 0.7 | 8 |
| 2119 | On the theory of self-similar crystallization with a mushy layer. AIP Conference Proceedings, 2017, , . | 0.3 | 0 |
| 2120 | The effects of impurity on the stability of Horizontal Ribbon Growth. Journal of Crystal Growth, 2017, 480, 34-42. | 0.7 | 2 |
| 2121 | Strongly nonlinear theory of rapid solidification near absolute stability. Physical Review E, 2017, 96, 042801. | 0.8 | 2 |
| 2122 | Dynamics and unsteady morphologies at ice interfaces driven by D ₂ O–H ₂ O exchange. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11627-11632. | 3.3 | 11 |
| 2123 | Morphology of the γ → α recrystalllization front with diffusional change in composition of complex iron alloys. Steel in Translation, 2017, 47, 349-352. | 0.1 | 0 |
| 2124 | Rate of Convergence of General Phase Field Equations in Strongly Heterogeneous Media Toward Their Homogenized Limit. SIAM Journal on Applied Mathematics, 2017, 77, 1471-1492. | 0.8 | 3 |
| 2125 | Lithium dendrite growth mechanisms in liquid electrolytes. Nano Energy, 2017, 41, 552-565. | 8.2 | 137 |
| 2126 | Fractal structures in freezing brine. Journal of Fluid Mechanics, 2017, 826, 975-995. | 1.4 | 0 |
| 2127 | Origins of Dendrite Formation in Sodium–Oxygen Batteries and Possible Countermeasures. Energy Technology, 2017, 5, 2265-2274. | 1.8 | 56 |
| 2128 | Modeling and simulation of microstructural evolution in Zr based Bulk Metallic Glass Matrix Composites during solidification. MRS Advances, 2017, 2, 3591-3606. | 0.5 | 8 |
| 2129 | Mechanism of Lithium Metal Penetration through Inorganic Solid Electrolytes. Advanced Energy Materials, 2017, 7, 1701003. | 10.2 | 780 |
| 2130 | Upward and downward unsteady-state directional solidification of a hypoeutectic Al-3wt.%Mg alloy. Ciência & Tecnologia Dos Materiais, 2017, 29, e65-e70. | 0.5 | 0 |
| 2131 | Instabilities in rapid solidification of multi-component alloys. Journal of Crystal Growth, 2017, 476, 78-89. | 0.7 | 4 |
| 2132 | Morphological Changes of Isotactic Polypropylene Crystals Grown in Thin Films. Macromolecules, 2017, 50, 6210-6217. | 2.2 | 25 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2133 | Analysis of thermodiffusive cellular instabilities in continuum combustion fronts. Physical Review E, 2017, 95, 012219. | 0.8 | 2 |
| 2134 | Stability of Electrodeposition at Solid-Solid Interfaces and Implications for Metal Anodes. Physical Review Letters, 2017, 119, 056003. | 2.9 | 142 |
| 2135 | Assembly of PCBM and tn-ZnPc Molecular Domains and Phase Separation of Molecular Mixtures from Liquid Solution on Si(111). Langmuir, 2017, 33, 13657-13668. | 1.6 | 1 |
| 2136 | Numerical Simulation Of Directionally Solidified CM247LC High Pressure Turbine Blade. Materials Today: Proceedings, 2017, 4, 7820-7830. | 0.9 | 10 |
| 2137 | Dewetting of patterned solid films: Towards a predictive modelling approach. Applied Physics Letters, 2017, 110, . | 1.5 | 14 |
| 2138 | Phase-field-crystal investigation of the morphology of a steady-state dendrite tip on the atomic scale. Physical Review E, 2017, 95, 062803. | 0.8 | 7 |
| 2139 | Effect of interface anisotropy on growth direction of tilted dendritic arrays in directional solidification of alloys: Insights from phase-field simulations. International Journal of Heat and Mass Transfer, 2017, 104, 607-614. | 2.5 | 30 |
| 2140 | Hyperdoping of Si by ion implantation and pulsed laser melting. Materials Science in Semiconductor Processing, 2017, 62, 103-114. | 1.9 | 30 |
| 2141 | Fundamentals and Principles of Electrode-Position. Springer Series in Surface Sciences, 2017, , 75-121. | 0.3 | 2 |
| 2142 | Phase-field simulations of curvature-induced cascading of Widmanstäten-ferrite plates. Acta Materialia, 2017, 123, 317-328. | 3.8 | 12 |
| 2143 | Phase separation of polymer mixtures driven by photochemical reactions: current status and perspectives. Polymer International, 2017, 66, 213-222. | 1.6 | 51 |
| 2144 | Influence of thermal stabilization on microstructure at the solid/liquid interface in a directionally solidified Sn-Ni peritectic alloy. Journal of Alloys and Compounds, 2017, 693, 799-807. | 2.8 | 7 |
| 2145 | Radial Growth in 2D Revisited: The Effect of Finite Density, Binding Affinity, Reaction Rates, and Diffusion. Advanced Materials Interfaces, 2017, 4, 1600310. | 1.9 | 4 |
| 2146 | Assessing microstructures and mechanical resistances of as-atomized and as-extruded samples of Al-1wt%Fe-1wt%Ni alloy. Journal of Alloys and Compounds, 2017, 691, 952-960. | 2.8 | 6 |
| 2147 | Solute redistribution around a parabolic dendrite in the case of thermodiffusion (Soret effect) and temperature-dependent diffusivity. AIP Conference Proceedings, 2017, , . | 0.3 | 0 |
| 2148 | Nanoscale evolution of interface morphology during electrodeposition. Nature Communications, 2017, 8, 2174. | 5.8 | 44 |
| 2149 | Instabilities in rapid directional solidification under weak flow. Physical Review E, 2017, 96, 062802. | 0.8 | 3 |
| 2150 | Instabilities of Fronts. Advances in Mathematical Fluid Mechanics, 2017, , 239-285. | 0.1 | 0 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2151 | The role of nonlinear mass transport on directional crystallization with a mushy layer. AIP Conference Proceedings, 2017, , . | 0.3 | 0 |
| 2152 | Boundary integral approach for elliptical dendritic paraboloid as a form of growing crystals. IOP Conference Series: Materials Science and Engineering, 2017, 192, 012025. | 0.3 | 2 |
| 2153 | Semi-discrete error estimates and implementation of a mixed method for the Stefan problem. ESAIM: Mathematical Modelling and Numerical Analysis, 2017, 51, 2093-2126. | 0.8 | 2 |
| 2154 | Shape of the growing front of biofilms. New Journal of Physics, 2017, 19, 125007. | 1.2 | 28 |
| 2155 | Strong impact of slight trench direction misalignment from \$[11ar{2}0]\$ on deep trench filling epitaxy for SiC super-junction devices. Japanese Journal of Applied Physics, 2017, 56, 04CR05. | 0.8 | 21 |
| 2156 | New type of γ′ phase in Ni based single crystal superalloys: Its formation mechanism and strengthening effect. Materials and Design, 2018, 145, 181-195. | 3.3 | 13 |
| 2157 | Au Dendrite Electrocatalysts for CO ₂ Electrolysis. Journal of Physical Chemistry C, 2018, 122, 10006-10016. | 1.5 | 30 |
| 2158 | Localized instabilities and spinodal decomposition in driven systems in the presence of elasticity. Physical Review E, 2018, 97, 012801. | 0.8 | 2 |
| 2159 | High Strength and Ductility of Additively Manufactured 316L Stainless Steel Explained. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 3011-3027. | 1.1 | 197 |
| 2160 | The Diffusion and Solid-Liquid Phase Transformation in Directional Solidification of Alloy: A Quantitative Phase Field Characterization and Real-Time Observation. , 2018, 15, 97-127. | | 0 |
| 2161 | Effect of rotational vibrations on directional solidification of high-temperature binary SiGe alloys. International Journal of Heat and Mass Transfer, 2018, 120, 714-723. | 2.5 | 5 |
| 2162 | Instability in the self-similar motion of a planar solidification front. IMA Journal of Applied Mathematics, 2018, 83, 106-130. | 0.8 | 4 |
| 2163 | A complete analytical solution of the Fokker–Planck and balance equations for nucleation and growth of crystals. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170327. | 1.6 | 66 |
| 2164 | Phase-field simulation and analytical modelling of CaSiO3 growth in CaO-Al2O3-SiO2 melts. Computational Materials Science, 2018, 144, 126-132. | 1.4 | 7 |
| 2165 | The preferential orientation and lattice misfit of the directionally solidified Fe–Al–Ta eutectic composite. Applied Physics A: Materials Science and Processing, 2018, 124, 1. | 1.1 | 8 |
| 2166 | Simulation and analysis of <mml:math <br="" xmlns:mml="http://www.w3.org/1998/Math/MathML">altimg="si46.gif" overflow="scroll"><mml:mrow><mml:mi>γ</mml:mi></mml:mrow></mml:math> -Ni cellular growth during laser powder deposition of Ni-based superalloys. Computational Materials Science 2018 144 256-264 | 1.4 | 35 |
| 2167 | Measuring solid–liquid interfacial energy fields: diffusion-limited patterns. Journal of Materials Science, 2018, 53, 10955-10978. | 1.7 | 8 |
| 2168 | Interfacial morphology evolution in directionally solidified FeCrAl alloys. Materials Characterization, 2018, 139, 303-310. | 1.9 | 8 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2169 | Microstructure tailoring and thermal stability of directionally solidified Al2O3/GdAlO3 binary eutectic ceramics by laser floating zone melting. Ceramics International, 2018, 44, 7908-7916. | 2.3 | 17 |
| 2170 | Thermal-field effects on interface dynamics and microstructure selection during alloy directional solidification. Acta Materialia, 2018, 150, 139-152. | 3.8 | 30 |
| 2171 | Interface microstructure formation of dissimilar Fe/Fe–Mn–C steel RSW joints. Journal of Materials Processing Technology, 2018, 252, 697-704. | 3.1 | 1 |
| 2172 | Substrate Dependence of the Freezing Dynamics of Supercooled Water Films: A High-Speed Optical Microscope Study. Journal of Physical Chemistry B, 2018, 122, 818-826. | 1.2 | 12 |
| 2173 | Phase field modeling of solidification microstructure evolution during welding. Journal of Materials Processing Technology, 2018, 255, 285-293. | 3.1 | 53 |
| 2174 | Matching time and spatial scales of rapid solidification: dynamic TEM experiments coupled to CALPHAD-informed phase-field simulations. Modelling and Simulation in Materials Science and Engineering, 2018, 26, 014002. | 0.8 | 13 |
| 2175 | Microstructure characterization and phase field analysis of dendritic crystal growth of γ-U and BCC-Mo dendrite in U–33 at.% Mo fast reactor fuel. Journal of Materials Research, 2018, 33, 225-238. | 1.2 | 2 |
| 2176 | Growth direction selection of tilted dendritic arrays in directional solidification over a wide range of pulling velocity: A phase-field study. International Journal of Heat and Mass Transfer, 2018, 117, 1107-1114. | 2.5 | 43 |
| 2177 | Porous membranes prepared by a combined crystallisation and diffusion (CCD) method: Study on formation mechanisms. Journal of Membrane Science, 2018, 548, 136-148. | 4.1 | 19 |
| 2178 | Preparation of bulk crystallite alloys by rapid quenching of bulk undercooled melts. Materials Science and Technology, 2018, 34, 79-85. | 0.8 | 15 |
| 2179 | Phaseâ€Field Modeling of Microstructural Evolution by Freeze asting. Advanced Engineering Materials, 2018, 20, 1700343. | 1.6 | 16 |
| 2181 | Morphological instability at the solid–liquid interface by the maximum entropy production rate principle. Canadian Journal of Physics, 2018, 96, 1314-1320. | 0.4 | 3 |
| 2182 | Model for black silicon formation just from surface temperature non-uniformities. Journal of Applied Physics, 2018, 124, 233302. | 1.1 | 2 |
| 2183 | Numerical research of solidification dynamics with anisotropy and thermal fluctuations. MATEC Web of Conferences, 2018, 240, 05028. | 0.1 | 2 |
| 2184 | On the theory of two-phase zone incipience due to the effect of constitutional supercooling. AIP Conference Proceedings, 2018, , . | 0.3 | 0 |
| 2185 | Instability of crystal/melt interface in Si-rich SiGe. Journal of Applied Physics, 2018, 124, 085104. | 1.1 | 9 |
| 2186 | Dynamics of Nanoscale Dendrite Formation in Solution Growth Revealed Through in Situ Liquid Cell Electron Microscopy. Nano Letters, 2018, 18, 6427-6433. | 4.5 | 38 |
| 2187 | In-situ observation of instability of a crystal–melt interface during the directional growth of pure antimony. AIP Advances, 2018, 8, . | 0.6 | 6 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2188 | Growth and characterization of detector-grade CdMnTe by the vertical Bridgman technique. AIP Advances, 2018, 8, . | 0.6 | 14 |
| 2189 | The Meshfree Interface Finite Element Method for Numerical Simulation of Dendritic Solidification with Fluid Flow. International Journal of Computational Methods, 2018, 15, 1850057. | 0.8 | 1 |
| 2190 | Multiscale framework for simulation-guided growth of 2D materials. Npj 2D Materials and Applications, 2018, 2, . | 3.9 | 41 |
| 2191 | Cellular tip splitting instability during transient growth. Computational Materials Science, 2018, 155, 364-372. | 1.4 | 3 |
| 2192 | Effect of cross-section-change induced advective flow on the primary dendrite array morphology of hypoeutectic Pb-Sb alloys during directional solidification. Journal of Crystal Growth, 2018, 502, 19-29. | 0.7 | 2 |
| 2193 | Growth Morphologies and Primary Solidification Modes in a Dissimilar Weld between a Low-Alloy Steel and an Austenitic Stainless Steel. Metals, 2018, 8, 284. | 1.0 | 25 |
| 2194 | Instability of the Phase Transition Front during Water Injection into High-Temperature Rock. Proceedings of the Steklov Institute of Mathematics, 2018, 300, 189-195. | 0.1 | 3 |
| 2195 | Effect of stress and interface kinetics on the growth of a cylinder of ternary alloy in contact with its melt. Journal of Crystal Growth, 2018, 493, 76-83. | 0.7 | 2 |
| 2196 | Effect of Surface Tension Anisotropy and Welding Parameters on Initial Instability Dynamics During Solidification: A Phase-Field Study. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 3293-3305. | 1.1 | 15 |
| 2197 | Modeling of binary alloy solidification under conditions representative of Additive Manufacturing. Computational Materials Science, 2018, 150, 535-545. | 1.4 | 20 |
| 2198 | Second order front tracking algorithm for Stefan problem on a regular grid. Journal of Computational Physics, 2018, 372, 956-971. | 1.9 | 13 |
| 2199 | Phase-Field Simulations of Lithium Dendrite Growth with Open-Source Software. ACS Energy Letters, 2018, 3, 1737-1743. | 8.8 | 108 |
| 2200 | A Boussinesq slurry model of the F-layer at the base of Earth's outer core. Geophysical Journal International, 2018, 214, 2236-2249. | 1.0 | 10 |
| 2201 | Effect of Nb Addition on Dendrite Growth and Equiaxed Grain Ratio of Fe-20 Pct Cr High-Purity Ferritic Stainless Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 5445-5457. | 1.1 | 13 |
| 2203 | Strainâ€Driven Selfâ€Assembling of Nanoâ€Voids and Formation of Core–Shell Bubbles in SiSn/Si Layers. Physica Status Solidi (B): Basic Research, 2018, 255, 1700635. | 0.7 | 1 |
| 2204 | Iceâ€Templated Poly(vinyl alcohol): Enhanced Strength and Low Thermal Conductivity. Macromolecular Materials and Engineering, 2018, 303, 1800198. | 1.7 | 6 |
| 2205 | 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. | 2.8 | 43 |
| 2206 | Unified icing theory based on phase transition of supercooled water on a substrate. International Journal of Heat and Mass Transfer, 2018, 123, 896-910. | 2.5 | 16 |

| | | CITATION RE | PORT | |
|------|--|---------------------|------|-----------|
| # | Article | | IF | CITATIONS |
| 2207 | Oxygen potential transition in mixed conducting oxide electrolyte. Acta Materialia, 201 | .8, 156, 399-410. | 3.8 | 31 |
| 2208 | Viscous fingering in a radial elastic-walled Hele-Shaw cell. Journal of Fluid Mechanics, 20 163-191. | 018, 849, | 1.4 | 53 |
| 2209 | Effect of Temperature Cycling on Ostwald Ripening. Crystal Growth and Design, 2018, | 18, 4952-4962. | 1.4 | 47 |
| 2210 | Controls on microstructural features during solidification of colloidal suspensions. Acta Materialia, 2018, 157, 288-297. | | 3.8 | 17 |
| 2211 | Effect of Ag Content on the Microstructure and Crystallization of Coupled Eutectic Gro Directionally Solidified Al-Cu-Ag Alloys. Metallurgical and Materials Transactions A: Phys Metallurgy and Materials Science, 2018, 49, 4735-4747. | wth in sical | 1.1 | 7 |
| 2212 | In situ observation of crystal/melt interface and infrared measurement of temperature p directional solidification of silicon wafer. Journal of Crystal Growth, 2018, 499, 90-97. | profile during | 0.7 | 5 |
| 2213 | Developing Highâ€Performance Lithium Metal Anode in Liquid Electrolytes: Challenges Advanced Materials, 2018, 30, e1706375. | and Progress. | 11.1 | 335 |
| 2214 | Penetration of molten iron alloy into the lower mantle phase. Comptes Rendus - Geosci 171-181. | ence, 2019, 351, | 0.4 | 5 |
| 2215 | Formation of viscous fingers in regularized Laplacian growth. Physical Review E, 2019, 2 | 100, 012129. | 0.8 | 2 |
| 2216 | Effect of morphology and ageing on the magnetic properties of nickel nanowires. Mate Bulletin, 2019, 120, 110576. | rials Research | 2.7 | 27 |
| 2217 | The effect of grain boundaries on instability at the crystal/melt interface during the unic growth of Si. Materialia, 2019, 7, 100386. | directional | 1.3 | 8 |
| 2218 | Uncertainty analysis of microsegregation during laser powder bed fusion. Modelling an in Materials Science and Engineering, 2019, 27, 034002. | d Simulation | 0.8 | 14 |
| 2219 | Interactions between Nanoparticles and Polymers in the Diffusion Boundary Layer durir Colloidal Suspensions. Langmuir, 2019, 35, 10446-10452. | ng Freezing | 1.6 | 5 |
| 2220 | Synthesis of silver microfibers with ultrahigh aspect ratio by galvanic replacement react Materials Chemistry and Physics, 2019, 237, 121872. | ion. | 2.0 | 2 |
| 2221 | Two-dimensional simulation of the damped Kuramoto–Sivashinsky equation via radia function-generated finite difference scheme combined with an exponential time discret Engineering Analysis With Boundary Elements, 2019, 107, 168-184. | l basis ization. | 2.0 | 23 |
| 2222 | Reconstitution reveals how myosin-VI self-organises to generate a dynamic mechanism sculpting. Nature Communications, 2019, 10, 3305. | of membrane | 5.8 | 8 |
| 2223 | Microstructure evolution of the rapidly solidified alloy powders and composite powders and Design, 2019, 182, 108045. | 3. Materials | 3.3 | 24 |
| 2224 | Immersion effects in zinc ITS-90 fixed-point cells. Measurement Science and Technolog 124001. | y, 2019, 30, | 1.4 | 3 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2225 | Formation mechanism of spherulites in Al–Si7Mg alloy during solidification under flow and stirring. Journal of Alloys and Compounds, 2019, 803, 891-900. | 2.8 | 7 |
| 2226 | Linear Stability Analysis of Transient Electrodeposition in Charged Porous Media: Suppression of Dendritic Growth by Surface Conduction. Journal of the Electrochemical Society, 2019, 166, A2280-A2299. | 1.3 | 20 |
| 2227 | Melt Crystallization. , 2019, , 266-289. | | 3 |
| 2228 | Relaxation to a planar interface in the Mullins–Sekerka problem. Interfaces and Free Boundaries, 2019, 21, 21-40. | 0.2 | 1 |
| 2229 | 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. | 2.8 | 14 |
| 2230 | Influence of melt convection on the morphological evolution of seaweed structures: Insights from phase-field simulations. Computational Materials Science, 2019, 170, 109196. | 1.4 | 5 |
| 2231 | Conditions of Formation of Doping Superstructures at Phase Transitions. Physics of the Solid State, 2019, 61, 1860-1866. | 0.2 | 4 |
| 2232 | Real time imaging of two-dimensional iron oxide spherulite nanostructure formation. Nano Research, 2019, 12, 2889-2893. | 5.8 | 8 |
| 2233 | On the mechanisms of stress relaxation and intensification at the lithium/solid-state electrolyte interface. Journal of Materials Research, 2019, 34, 3593-3616. | 1.2 | 30 |
| 2234 | On the Deformation of Dendrites During Directional Solidification of a Nickel-Based Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 5234-5241. | 1.1 | 29 |
| 2235 | Comparative study of different anisotropy and potential formulations of phase-field models for dendritic solidification. Computational Materials Science, 2019, 170, 109197. | 1.4 | 11 |
| 2236 | EFFECT OF ANISOTROPIC SURFACE TENSION ON THE MORPHOLOGICAL STABILITY OF DEEP CELLULAR CRYSTAL GROWTH IN DIRECTIONAL SOLIDIFICATION. Surface Review and Letters, 2019, 26, 1850210. | 0.5 | 1 |
| 2237 | Active control of viscous fingering using electric fields. Nature Communications, 2019, 10, 4002. | 5.8 | 40 |
| 2238 | Molecular Weight Dependence of Crystal Growth in Isotactic Polystyrene Ultrathin Films. ACS Macro Letters, 2019, 8, 1227-1232. | 2.3 | 2 |
| 2239 | Solute drag and dynamic phase transformations in moving grain boundaries. Acta Materialia, 2019, 179, 383-395. | 3.8 | 24 |
| 2240 | Grain-anisotropied high-strength Ni6Cr4WFe9Ti high entropy alloys with outstanding tensile ductility. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 767, 138382. | 2.6 | 8 |
| 2241 | Cooling Behavior and Microstructure of Semisolid A201 Aluminum Alloy Prepared by the SEED Process. Metals, 2019, 9, 922. | 1.0 | 4 |
| 2242 | Formation of Structured Membranes by Coacervation of Xanthan Gum with C <i>_n</i> TAB Surfactants. Langmuir, 2019, 35, 13624-13635. | 1.6 | 4 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2243 | Free dendritic growth model based on nonisothermal interface and microscopic solvability theory. Transactions of Nonferrous Metals Society of China, 2019, 29, 601-607. | 1.7 | 5 |
| 2244 | Influence of crystallographic orientation of epitaxial solidification on the initial instability during the solidification of welding pool. Journal of Manufacturing Processes, 2019, 38, 298-307. | 2.8 | 10 |
| 2245 | The effect of anisotropic surface tension on interfacial evolution of a particle in the binary alloy melt. Journal of Crystal Growth, 2019, 510, 32-39. | 0.7 | 7 |
| 2246 | Solute convection effects on a bubble entrapped as a pore during unidirectional upward solidification. International Journal of Heat and Mass Transfer, 2019, 135, 62-71. | 2.5 | 8 |
| 2247 | Stably stratified layers within Earth's core. Astronomy and Geophysics, 2019, 60, 3.30-3.35. | 0.1 | 6 |
| 2248 | Theory of microscopic electrodeposition under a uniform parallel magnetic field - 2. Suppression of 3D nucleation by micro-MHD flow. Journal of Electroanalytical Chemistry, 2019, 847, 113255. | 1.9 | 15 |
| 2249 | Cellular-to-Dendritic and Dendritic-to-Cellular Morphological Transitions in a Ternary Al-Mg-Si Alloy. IOP Conference Series: Materials Science and Engineering, 2019, 529, 012018. | 0.3 | 11 |
| 2251 | Stability of lubricated viscous gravity currents. Part 1. Internal and frontal analyses and stabilisation by horizontal shear. Journal of Fluid Mechanics, 2019, 871, 970-1006. | 1.4 | 11 |
| 2252 | Quantifying uncertainty in the process-structure relationship for Al–Cu solidification. Modelling and Simulation in Materials Science and Engineering, 2019, 27, 064005. | 0.8 | 14 |
| 2253 | Stability of lubricated viscous gravity currents. Part 2. Global analysis and stabilisation by buoyancy forces. Journal of Fluid Mechanics, 2019, 871, 1007-1027. | 1.4 | 11 |
| 2254 | Transient directional solidification of a eutectic Al–Si–Ni alloy: Macrostructure, microstructure, dendritic growth and hardness. Materialia, 2019, 7, 100358. | 1.3 | 23 |
| 2255 | Influence of morphological instability on grain boundary trajectory during directional solidification. Acta Materialia, 2019, 175, 214-221. | 3.8 | 22 |
| 2256 | Probing the degenerate pattern growth of {100}<011> orientation in a directionally solidified Al-4.5 wt% Cu alloy. Journal of Materials Science and Technology, 2019, 35, 1309-1314. | 5.6 | 20 |
| 2257 | Neural crest streaming as an emergent property of tissue interactions during morphogenesis. PLoS Computational Biology, 2019, 15, e1007002. | 1.5 | 28 |
| 2258 | On the use of metastable interface equilibrium assumptions on prediction of solidification micro-segregation in laser powder bed fusion. Science and Technology of Welding and Joining, 2019, 24, 446-456. | 1.5 | 5 |
| 2259 | Assembly of silica rods into tunable branched living nanostructures mediated by coalescence of catalyst droplets. Chemical Communications, 2019, 55, 4391-4394. | 2.2 | 3 |
| 2260 | Hexagonal Boron Nitride Growth on Cu‣i Alloy: Morphologies and Large Domains. Small, 2019, 15, e1805188. | 5.2 | 24 |
| 2261 | Halo formation in directionally solidified Al2O3-Er3Al5O12 off-eutectic in situ composite ceramics. Materials Characterization, 2019, 150, 31-37. | 1.9 | 6 |

| # | Article | IF | Citations |
|------|---|-----|-----------|
| 2262 | Effects of Nucleus Density and Dendritic Growth Influenced by Ti and Nb on Solidification Structure of Fe-18ÂPct Cr Ferritic Stainless Steel. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2019, 50, 1322-1333. | 1.0 | 17 |
| 2263 | Constrained Dendritic Growth and Solute Concentration Effects in Rapidly Solidified Co-Cr Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2019, 50, 2272-2278. | 1.1 | 3 |
| 2264 | Multi-scale macrosegregation patterns due to the ripple superimposition: Characterization, mechanism and control. Materials and Design, 2019, 172, 107765. | 3.3 | 6 |
| 2265 | Effects of post-deposition heat treatment on microstructures of GTA-additive manufactured 2219-Al. Science and Technology of Welding and Joining, 2019, 24, 474-483. | 1.5 | 14 |
| 2266 | Physics of active emulsions. Reports on Progress in Physics, 2019, 82, 064601. | 8.1 | 176 |
| 2267 | On-Chip Electrochemical Detection of Cholera Using a Polypyrrole-Functionalized Dendritic Gold Sensor. ACS Sensors, 2019, 4, 654-659. | 4.0 | 27 |
| 2268 | The numerical modeling of cell freezing in binary solution under subcooling conditions. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 30, 3005-3025. | 1.6 | 3 |
| 2269 | ARTEC—A furnace module for directional solidification and quenching experiments in microgravity. Review of Scientific Instruments, 2019, 90, 125117. | 0.6 | 2 |
| 2270 | On our Limited Understanding of Electrodeposition. MRS Advances, 2019, 4, 2843-2861. | 0.5 | 10 |
| 2271 | The effects of high pressure and superheating on the planar growth of Al3Ni phase in hypo-peritectic Al-30wt%Ni alloy. Journal of Alloys and Compounds, 2019, 772, 1052-1060. | 2.8 | 17 |
| 2272 | Phase-field simulation for the evolution of solid/liquid interface front in directional solidification process. Journal of Materials Science and Technology, 2019, 35, 1044-1052. | 5.6 | 173 |
| 2273 | Functional Macromolecular Systems: Kinetic Pathways to Obtain Tailored Structures. Macromolecular Chemistry and Physics, 2019, 220, 1800334. | 1.1 | 29 |
| 2274 | General model on position of the solid/liquid interface during preparation of a directionally solidified peritectic alloy containing intermetallic compound phases. Materials Chemistry and Physics, 2019, 223, 641-647. | 2.0 | 1 |
| 2275 | Numerical study of Sivashinsky equation using a splitting scheme based on Crankâ€Nicolson method. Mathematical Methods in the Applied Sciences, 2019, 42, 5509-5521. | 1.2 | 3 |
| 2276 | Strong shear-flow modulation of instabilities in rapid directional solidification. Acta Materialia, 2019, 164, 464-472. | 3.8 | 3 |
| 2277 | Effect of the misorientation angle and anisotropy strength on the initial planar instability dynamics during solidification in a molten pool. International Journal of Heat and Mass Transfer, 2019, 130, 204-214. | 2.5 | 8 |
| 2278 | Specifically designed concentration profiles created by sudden velocity changes during directional solidification. Journal of Crystal Growth, 2019, 506, 97-101. | 0.7 | 5 |
| 2279 | The 3-dimensional morphology of dendrite during equiaxed solidification of an Al-5 wt.% Cu alloy. Journal of Materials Science and Technology, 2019, 35, 239-247. | 5.6 | 9 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2280 | Growth and investigation of pure and sodium iodide-doped zinc tris-thiourea sulphate (ZTS) single crystals. Materials Research Innovations, 2019, 23, 222-227. | 1.0 | 5 |
| 2281 | Investigation of the origin of anomalous eutectic formation by remelting thin-gauge samples of an Ag-Cu eutectic alloy. Scripta Materialia, 2020, 174, 72-76. | 2.6 | 12 |
| 2282 | Coalescence-dominated microstructure evolution during solidification of 20SiMn steel. Journal of Iron and Steel Research International, 2020, 27, 506-516. | 1.4 | 3 |
| 2283 | In-situ observation of solid-liquid interface transition during directional solidification of Al-Zn alloy via X-ray imaging. Journal of Materials Science and Technology, 2020, 39, 113-123. | 5.6 | 17 |
| 2284 | Phase-field study of eutectic colony formation in NiAl-34Cr. Acta Materialia, 2020, 182, 267-277. | 3.8 | 24 |
| 2285 | In situ observation of remelting induced anomalous eutectic structure formation in an undercooled Ni-18.7 at.% Sn eutectic alloy. Scripta Materialia, 2020, 177, 123-127. | 2.6 | 50 |
| 2286 | Restructuring and breakup of nanowires with the diamond cubic crystal structure into nanoparticles. Materials Today Communications, 2020, 22, 100727. | 0.9 | 7 |
| 2287 | Heat transfer and fluid flow and their effects on the solidification microstructure in full-penetration laser welding of aluminum sheet. Journal of Materials Science and Technology, 2020, 46, 50-63. | 5.6 | 79 |
| 2288 | In situ observation of the solidification interface and grain boundary development of two silicon seeds with simultaneous measurement of temperature profile and undercooling. Journal of Crystal Growth, 2020, 532, 125428. | 0.7 | 4 |
| 2289 | Large electric field-induced strain in the novel BNKTAN-BNBLTZ lead-free ceramics. Journal of Materials Science and Technology, 2020, 45, 15-22. | 5.6 | 16 |
| 2290 | Multi-scale simulation of grain/sub-grain structure evolution during solidification in laser welding of aluminum alloys. International Journal of Heat and Mass Transfer, 2020, 149, 119252. | 2.5 | 32 |
| 2291 | Modelling binary alloy solidification with adaptive mesh refinement. Journal of Computational Physics: X, 2020, 5, 100043. | 1.1 | 7 |
| 2292 | Phase behavior of poly(ε-caprolactone)-b-poly(tert-butyl acrylate) block copolymer at the air/water interface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 587, 124346. | 2.3 | 3 |
| 2293 | A phase-field investigation of the effect of grain-boundary diffusion on austenite to ferrite transformation. Computational Materials Science, 2020, 173, 109428. | 1.4 | 8 |
| 2294 | Microstructure and fracture toughness of the Bridgman directionally solidified Fe-Al-Ta eutectic at different solidification rates. Journal of Materials Science and Technology, 2020, 42, 63-74. | 5.6 | 15 |
| 2295 | Basic growth and crystallographic quality of Si crystals for solar cells. , 2020, , 1-61. | | 0 |
| 2296 | Basic characterization and electrical properties of Si crystals. , 2020, , 63-99. | | 1 |
| 2297 | Selfâ€Assembly in Hopper‧haped Crystals. Advanced Functional Materials, 2020, 30, 1908108. | 7.8 | 14 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2298 | 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 |
| 2299 | A review of recent literature on icing phenomena: Transport mechanisms, their modulations and controls. International Journal of Heat and Mass Transfer, 2020, 159, 120074. | 2.5 | 56 |
| 2300 | Analysis of chemical stress and the propensity for cracking during the vertical Bridgman growth of BaBrCl:Eu. Journal of Crystal Growth, 2020, 546, 125794. | 0.7 | 4 |
| 2301 | Freezeâ€assisted Tape Casting of Vertically Aligned MXene Films for High Rate Performance Supercapacitors. Energy and Environmental Materials, 2020, 3, 380-388. | 7.3 | 38 |
| 2302 | Imaging transient solidification behavior. MRS Bulletin, 2020, 45, 916-926. | 1.7 | 16 |
| 2303 | Observation of side arm splitting studied by high resolution X-ray radiography. International Journal of Materials Research, 2020, 111, 11-16. | 0.1 | 3 |
| 2304 | 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 |
| 2305 | Exotic colony formation in Sn-Te eutectic system. Acta Materialia, 2020, 197, 108-121. | 3.8 | 10 |
| 2306 | Metallurgical modeling of intergranular HAZ liquation cracking during laser welding newly developed crystallography-dependent aerospace materials. Part I: Spontaneous microcrack repair of microstructure development. IOP Conference Series: Materials Science and Engineering, 2020, 770, 012016. | 0.3 | 0 |
| 2307 | Effects of On-Line Vortex Cooling on the Microstructure and Mechanical Properties of Wire Arc Additively Manufactured Al-Mg Alloy. Metals, 2020, 10, 1004. | 1.0 | 17 |
| 2308 | Nonreciprocity as a generic route to traveling states. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 19767-19772. | 3.3 | 69 |
| 2309 | On Directional Dendritic Growth and Primary Spacing—A Review. Crystals, 2020, 10, 627. | 1.0 | 33 |
| 2310 | On the solidification characteristics, deformation, and functionally graded interfaces in additively manufactured hybrid aluminum alloys. International Journal of Plasticity, 2020, 133, 102840. | 4.1 | 25 |
| 2311 | Dendritic and seaweed growth of proeutectic scandium tri-aluminide in hypereutectic Al-Sc undercooled melt. Acta Materialia, 2020, 200, 56-65. | 3.8 | 21 |
| 2312 | Stress-Induced Intercalation Instability. Acta Materialia, 2020, 201, 158-166. | 3.8 | 6 |
| 2313 | Structural phase transitions of optical patterns in atomic gases with microwave-controlled Rydberg interactions. Physical Review A, 2020, 102, . | 1.0 | 6 |
| 2314 | Enhanced performance of piezoelectric composite nanogenerator based on gradient porous PZT ceramic structure for energy harvesting. Journal of Materials Chemistry A, 2020, 8, 19631-19640. | 5.2 | 61 |
| 2315 | Characterization of metals in four dimensions. Materials Research Letters, 2020, 8, 462-476. | 4.1 | 32 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2316 | Formation of Regular Layered Structures upon Solid-State Phase Transitions with Varying the Concentration. Physics of the Solid State, 2020, 62, 1398-1406. | 0.2 | 3 |
| 2317 | Effects of high pressure and superheat temperature on microstructure evolution of Al-20Si alloy. Journal of Materials Research and Technology, 2020, 9, 11622-11628. | 2.6 | 5 |
| 2318 | Experimental characterization and theoretical analysis of cell tip oscillations in directional solidification. Physical Review E, 2020, 102, 032804. | 0.8 | 6 |
| 2319 | The plate spacing of sea ice. Annals of Glaciology, 2020, 61, 408-425. | 2.8 | 5 |
| 2320 | Phase change interface stability during isochoric solidification of an aqueous solution. Applied Physics Letters, 2020, 117, . | 1.5 | 8 |
| 2321 | Mathematical modeling of binary compounds with the presence of a phase transition layer. Mathematical Methods in the Applied Sciences, 2021, 44, 12260-12270. | 1.2 | 6 |
| 2322 | The Growth Pattern of Co3Sn2 in Directional Solidification of Co-Sn Hypereutectic Alloy Melts. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 6346-6354. | 1.1 | 6 |
| 2323 | Molar Volume Mismatch: A Malefactor for Irregular Metallic Electrodeposition with Solid Electrolytes. Journal of the Electrochemical Society, 2020, 167, 082510. | 1.3 | 44 |
| 2324 | Evolution of cellular morphology in pure materials. Journal of Materials Science, 2020, 55, 11339-11352. | 1.7 | 1 |
| 2325 | Constitutional under-potential plating (CUP) – New insights for predicting the morphological stability of deposited lithium anodes in lithium metal batteries. Journal of Power Sources, 2020, 467, 228243. | 4.0 | 7 |
| 2326 | Turing and Benjamin–Feir instability mechanisms in non-autonomous systems. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2020, 476, 20200003. | 1.0 | 19 |
| 2327 | Interface velocity dependent solute trapping and phase selection during rapid solidification of laser melted hypo-eutectic Al-11at.%Cu alloy. Acta Materialia, 2020, 195, 341-357. | 3.8 | 40 |
| 2328 | Objects interacting with solidification fronts: Thermal and solute effects. Materialia, 2020, 12, 100802. | 1.3 | 7 |
| 2329 | Investigation of beta fleck formation in Ti-17 alloy by directional solidification method. Journal of Materials Science and Technology, 2020, 48, 36-43. | 5.6 | 10 |
| 2330 | Influence of post-heat treatments on the mechanical properties of CX stainless steel fabricated by selective laser melting. Journal of Materials Science, 2020, 55, 8303-8316. | 1.7 | 41 |
| 2331 | Diversity of anisotropy effects in the breakup of metallic FCC nanowires into ordered nanodroplet chains. CrystEngComm, 2020, 22, 2601-2611. | 1.3 | 10 |
| 2332 | Multiscale Lithium-Battery Modeling from Materials to Cells. Annual Review of Chemical and Biomolecular Engineering, 2020, 11, 277-310. | 3.3 | 25 |
| 2333 | Morphological stability diagram for slowly and rapidly solidifying binary systems. European Physical Journal: Special Topics, 2020, 229, 353-364. | 1.2 | 1 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2334 | Rapid solidification and surface topography for additive manufacturing with beam surface heating. Current Opinion in Chemical Engineering, 2020, 28, 10-20. | 3.8 | 3 |
| 2335 | An exponentially accurate spectral reconstruction technique for the single-phase one-dimensional Stefan problem with constant coefficients. International Journal of Heat and Mass Transfer, 2020, 158, 119841. | 2.5 | 2 |
| 2336 | Binary melt with quasi-stationary solidification modeling: Mushy layer approach. AIP Conference Proceedings, 2020, , . | 0.3 | 2 |
| 2337 | Cyclic stress-assisted surface diffusion and stress concentration of machined surface topography. Engineering Fracture Mechanics, 2020, 234, 107087. | 2.0 | 2 |
| 2338 | Dendrite Suppression by a Polymer Coating: A Coarseâ€Grained Molecular Study. Advanced Functional Materials, 2020, 30, 1910138. | 7.8 | 49 |
| 2339 | Solidification Morphology and Bifurcation Predictions with the Maximum Entropy Production Rate Model. Entropy, 2020, 22, 40. | 1.1 | 6 |
| 2340 | Effects of excess Te on flux inclusion formation in the growth of cadmium zinc telluride when forced melt convection is applied. Journal of Crystal Growth, 2020, 535, 125542. | 0.7 | 14 |
| 2341 | Growth competition during columnar solidification of seaweed microstructures. European Physical Journal E, 2020, 43, 14. | 0.7 | 5 |
| 2342 | Towards the theory of phase transformations in metastable liquids. Analytical solutions and stability analysis. European Physical Journal: Special Topics, 2020, 229, 365-373. | 1.2 | 14 |
| 2343 | Transient dynamics of solute bands in dilute binary alloys. European Physical Journal: Special Topics, 2020, 229, 253-263. | 1.2 | 5 |
| 2344 | Modeling remelting induced destabilization of lamellar eutectic structure in an undercooled Ni-18.7 at.% Sn eutectic alloy. Journal of Alloys and Compounds, 2020, 826, 154018. | 2.8 | 5 |
| 2345 | The role of side-branching in microstructure development in laser powder-bed fusion. Nature Communications, 2020, 11, 749. | 5.8 | 262 |
| 2346 | Microstructure morphology and concentration modulation of nanocomposite thin-films during simulated physical vapor deposition. Acta Materialia, 2020, 188, 181-191. | 3.8 | 38 |
| 2347 | The phase field method for geometric moving interfaces and their numerical approximations. Handbook of Numerical Analysis, 2020, 21, 425-508. | 0.9 | 39 |
| 2348 | Stability of ice lenses in saline soils. Journal of Fluid Mechanics, 2020, 886, . | 1.4 | 4 |
| 2349 | Interaction between antifreeze protein and ice crystal facet evaluated by ice-channel electrophoretic measurements of threshold electric field strength. Analytica Chimica Acta, 2020, 1110, 122-130. | 2.6 | 5 |
| 2353 | Temperature–Composition Phase Diagrams. , 2020, , 21-58. | | 0 |
| 2355 | Nucleation. , 2020, , 83-108. | | 0 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2356 | Effects of Diffusion and Nucleation on Phase Transformations. , 2020, , 109-130. | | 1 |
| 2361 | Interactions in Microstructures and Constrained Equilibrium. , 2020, , 223-249. | | 0 |
| 2362 | Atom Movements with the Vacancy Mechanism. , 2020, , 250-286. | | 0 |
| 2364 | Thermodynamics and Phase Transitions at Surfaces. , 2020, , 289-317. | | 0 |
| 2365 | Melting. , 2020, , 318-341. | | 0 |
| 2366 | Solidification. , 2020, , 342-372. | | 0 |
| 2367 | Phase Transformations with Interfaces: 1. Microstructure. , 2020, , 373-397. | | 0 |
| 2368 | Phase Transformations with Interfaces: 2. Energetics and Kinetics. , 2020, , 398-423. | | 0 |
| 2369 | Spinodal Decomposition. , 2020, , 424-440. | | 0 |
| 2370 | Phase Field Theory. , 2020, , 441-457. | | 0 |
| 2371 | Method of Concentration Waves and Chemical Ordering. , 2020, , 458-481. | | 0 |
| 2372 | Diffusionless Transformations. , 2020, , 482-510. | | 1 |
| 2373 | Thermodynamics of Nanomaterials. , 2020, , 511-532. | | 0 |
| 2374 | Magnetic and Electronic Phase Transitions. , 2020, , 533-564. | | 0 |
| 2378 | A phase-field study on the evolution of Widmanstäen-ferrite plates under mixed-mode of transformation. Computational Materials Science, 2020, 180, 109718. | 1.4 | 3 |
| 2379 | On small-time similarity-solution behaviour in the solidification shrinkage of binary alloys. European Journal of Applied Mathematics, 2021, 32, 199-225. | 1.4 | 8 |
| 2380 | Seedless growth of two-dimensional disc-shaped WS2 layers by chemical vapor deposition. Materials Chemistry and Physics, 2021, 257, 123837. | 2.0 | 4 |
| 2381 | Modeling the chemo-mechanical behavior of all-solid-state batteries: a review Meccanica, 2021, 56, 1523-1554. | 1.2 | 41 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2382 | Optimizing the microstructures and mechanical properties of Al-Cu-based alloys with large solidification intervals by coupling travelling magnetic fields with sequential solidification. Journal of Materials Science and Technology, 2021, 61, 100-113. | 5.6 | 18 |
| 2383 | Twin crystal structured Al-10 wt.% Mg alloy over broad velocity conditions achieved by high thermal gradient directional solidification. Journal of Materials Science and Technology, 2021, 71, 152-162. | 5.6 | 2 |
| 2384 | A Model Describing Solidification Microstructure Evolution in an Inoculated Aluminum Alloys. Acta Metallurgica Sinica (English Letters), 2021, 34, 861-871. | 1.5 | 4 |
| 2385 | Formation mechanism of α lamellae during β→α transformation in polycrystalline dual-phase Ti alloys. Journal of Materials Science and Technology, 2021, 71, 98-108. | 5.6 | 17 |
| 2386 | Laser powder bed fusion of eutectic Al–Ni alloys: Experimental and phase-field studies. Materials and Design, 2021, 198, 109299. | 3.3 | 22 |
| 2387 | Freeze Casting. , 2021, , 195-202. | | 0 |
| 2388 | Information in electrodeposited dendrites. Advances in Physics: X, 2021, 6, 1920846. | 1.5 | 0 |
| 2389 | In situ observation of the impact of hydrogen bubbles in Al–Cu melt on directional dendritic solidification. Journal of Materials Science, 2021, 56, 8225-8242. | 1.7 | 6 |
| 2390 | Fracto-eutectogels: SDS fractal dendrites <i>via</i> counterion condensation in a deep eutectic solvent. Physical Chemistry Chemical Physics, 2021, 23, 11672-11683. | 1.3 | 6 |
| 2391 | Effect of magnetic field on stability in a mushy layer during binary alloy solidification. Wuli Xuebao/Acta Physica Sinica, 2021, . | 0.2 | 1 |
| 2392 | Non-stationary dendrite shape in the case of a high growth rate. AIP Conference Proceedings, 2021, , . | 0.3 | 0 |
| 2393 | On the Theory of Directional Solidification in the Presence of a Mushy Zone. Russian Metallurgy (Metally), 2021, 2021, 170-175. | 0.1 | 0 |
| 2394 | Faceted-rough surface with disassembling of macrosteps in nucleation-limited crystal growth. Scientific Reports, 2021, 11, 3711. | 1.6 | 10 |
| 2395 | Secondary nucleation in polymer crystallization: A kinetic view. Polymer Crystallization, 2021, 4, e10173. | 0.5 | 13 |
| 2396 | Multiple objects interacting with a solidification front. Scientific Reports, 2021, 11, 3513. | 1.6 | 6 |
| 2397 | Viscocapillary instability in cellular spheroids. New Journal of Physics, 2021, 23, 033032. | 1.2 | 10 |
| 2398 | Nitrogen Dissolution in Liquid Ga and Fe: Comprehensive Ab Initio Analysis, Relevance for Crystallization of GaN. Materials, 2021, 14, 1306. | 1.3 | 4 |
| 2399 | Superheating of water and morphological instability of the boiling front moving in the low-permeability rock. International Journal of Heat and Mass Transfer, 2021, 167, 120820. | 2.5 | 4 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2400 | Suppression of electroconvective and morphological instabilities by an imposed cross flow of the electrolyte. Physical Review Fluids, 2021, 6, . | 1.0 | 8 |
| 2401 | Elucidating the Kinetic Root of the Evolution of the Oriented Nanoporous Metal from Reduction-Induced Decomposition. Chemistry of Materials, 2021, 33, 2604-2610. | 3.2 | 6 |
| 2402 | Impact of Thermal Properties on Crystalline Structure, Polymorphism and Morphology of Polymer Matrices in Composites. Materials, 2021, 14, 2136. | 1.3 | 5 |
| 2403 | Formation of Stacked Three-Dimensional Polymer "Single Crystals― Macromolecules, 2021, 54, 4918-4925. | 2.2 | 10 |
| 2404 | Solidification Behavior of in situ TiB2/Cu Composite Powders during Reactive Gas Atomization. Journal Wuhan University of Technology, Materials Science Edition, 2021, 36, 203-208. | 0.4 | 3 |
| 2405 | Variety of Ordered Patterns in Donor–Acceptor Polymer Semiconductor Films Crystallized from Solution. ACS Applied Materials & Interfaces, 2021, 13, 19055-19063. | 4.0 | 3 |
| 2406 | Phase and microstructure pattern selection of Zn-rich Zn–Cu peritectic alloys during laser surface remelting. Journal of Materials Science, 2021, 56, 14314-14332. | 1.7 | 2 |
| 2407 | Imaging, understanding, and control of nanoscale materials transformations. MRS Bulletin, 2021, 46, 443-450. | 1.7 | 13 |
| 2408 | Free dendritic growth model considering both interfacial nonisothermal nature and effect of convection for binary alloy. Transactions of Nonferrous Metals Society of China, 2021, 31, 1518-1528. | 1.7 | 1 |
| 2409 | Freezeâ€cast honeycomb structures via gravityâ€enhanced convection. Journal of the American Ceramic Society, 2021, 104, 4309-4315. | 1.9 | 2 |
| 2410 | Effect of High Pressure and Temperature on the Evolution of Si Phase and Eutectic Spacing in Al-20Si Alloys. Crystals, 2021, 11, 705. | 1.0 | 4 |
| 2411 | Effect of freezing velocity and platelet size on structural parameters and morphology of freeze-cast porous alumina scaffolds. Ceramics International, 2021, 47, 16661-16673. | 2.3 | 12 |
| 2412 | Phase-Field Modeling of Biomineralization in Mollusks and Corals: Microstructure vs Formation Mechanism. Jacs Au, 2021, 1, 1014-1033. | 3.6 | 10 |
| 2413 | In-situ evidence for impurity-induced formation of eutectic colonies in an interdendritic liquid. Materials Letters, 2021, 292, 129637. | 1.3 | 5 |
| 2414 | The development of grain structure during additive manufacturing. Acta Materialia, 2021, 211, 116862. | 3.8 | 60 |
| 2415 | Oscillatory and tip-splitting instabilities in 2D dynamic fracture: The roles of intrinsic material length and time scales. Journal of the Mechanics and Physics of Solids, 2021, 151, 104372. | 2.3 | 5 |
| 2416 | Lamellar instabilities during scanning laser melting of Al–Cu eutectic and hypoeutectic thin films. Journal of Alloys and Compounds, 2021, 865, 158800. | 2.8 | 8 |
| 2417 | Dendritic Growth in Silâ^'xGex Melts. Crystals, 2021, 11, 761. | 1.0 | 1 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2418 | The high temperature wetting and corrosion mechanism analysis of Nb by TiAl alloy melt. Corrosion Science, 2021, 186, 109316. | 3.0 | 9 |
| 2419 | Size controls on the crossover from normal to self-inhibited sintering of ice spheres. Acta Materialia, 2021, 213, 116926. | 3.8 | 1 |
| 2420 | Analysis of gravity effects during binary alloy directional solidification by comparison of microgravity and Earth experiments with in situ observation. European Physical Journal E, 2021, 44, 98. | 0.7 | 5 |
| 2421 | Directional Crystallization from the Melt of an Organic p-Type and n-Type Semiconductor Blend. Crystal Growth and Design, 2021, 21, 5231-5239. | 1.4 | 8 |
| 2422 | Self-Organization, Entropy Generation Rate, and Boundary Defects: A Control Volume Approach. Entropy, 2021, 23, 1092. | 1.1 | 6 |
| 2423 | Fabrication of 3D hierarchical porous amidoxime-polyacrylonitrile spheres via nanoscale thermally induced phase separation with superhigh antimonate adsorption capacity. Journal of Cleaner Production, 2021, 310, 127400. | 4.6 | 7 |
| 2424 | Dendrite Pattern Formation of Sodium Chloride Crystal. Materials, 2021, 14, 4434. | 1.3 | 5 |
| 2425 | Viscous banding instabilities: non-porous viscous fingering. Journal of Fluid Mechanics, 2021, 926, . | 1.4 | 5 |
| 2426 | Hydrodynamics of noncircular vortices in beams of light and other two-dimensional fluids. Physical Review A, 2021, 104, . | 1.0 | 10 |
| 2427 | Microstructure in the transition region and steady-state region of ice-templated sintered lithium titanate Li4Ti5O12 materials fabricated with and without sucrose. Journal of Materials Research, 2021, 36, 3519-3538. | 1.2 | 4 |
| 2428 | 3D electron backscatter diffraction characterization of fine \hat{I}_{\pm} titanium microstructures: collection, reconstruction, and analysis methods. Ultramicroscopy, 2021, 230, 113394. | 0.8 | 7 |
| 2429 | Field variable diffusion cellular automaton model for dendritic growth with multifold symmetry for the solidification of alloys. Modelling and Simulation in Materials Science and Engineering, 2021, 29, 075005. | 0.8 | 2 |
| 2430 | A grid based ADI method for the problem of two phase solidification. International Journal of Heat and Mass Transfer, 2021, 178, 121569. | 2.5 | 3 |
| 2431 | Formation and 3D morphology of interconnected $\hat{I}\pm$ microstructures in additively manufactured Ti-6Al-4V. Materialia, 2021, 20, 101201. | 1.3 | 7 |
| 2432 | Effect of concentration-gradient on characteristic parameters of α-Al dendrites in Al-Cu alloy. Journal of Alloys and Compounds, 2021, 889, 161666. | 2.8 | 3 |
| 2433 | Additive manufacturing of metals: Microstructure evolution and multistage control. Journal of Materials Science and Technology, 2022, 100, 224-236. | 5.6 | 215 |
| 2434 | Interface kinetics modeling of binary alloy solidification by considering correlation between thermodynamics and kinetics. Transactions of Nonferrous Metals Society of China, 2021, 31, 306-316. | 1.7 | 0 |
| 2436 | Kinetically Controlled Growth of Subâ€Millimeter 2D Cs ₂ SnI ₆ Nanosheets at the Liquid–Liquid Interface. Small, 2021, 17, e2006279. | 5.2 | 14 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2438 | Morphological Stability of a Linear Step in the Presence of a Mobile Adsorbed Impurity. , 1996, , 59-68. | | 1 |
| 2439 | Crystal Growth and Phase Formation. , 1983, , 51-79. | | 12 |
| 2440 | Segregation, Supersaturated Alloys and Semiconductor Surfaces. , 1983, , 81-132. | | 5 |
| 2441 | The Rayleigh Instability for a Cylindrical Crystal-Melt Interface. The IMA Volumes in Mathematics and Its Applications, 1993, , 159-169. | 0.5 | 2 |
| 2442 | Mathematical Description of Viscous Free Surface Flows. The IMA Volumes in Mathematics and Its Applications, 1994, , 1-27. | 0.5 | 2 |
| 2443 | Convective and Morphological Stability during Directional Solidification of the Succinonitrile-Acetone System. The IMA Volumes in Mathematics and Its Applications, 1994, , 99-112. | 0.5 | 1 |
| 2444 | Cellular Substructures in Single Crystalline Solid Solutions of Inorganic Fluorides Having the Fluorite Structure. , 1991, , 165-176. | | 3 |
| 2445 | Stability of Interfaces. , 1978, , 227-293. | | 19 |
| 2446 | Diffusion Controlled Growth Phenomena: From Smooth Interfaces to Fractal Structures. NATO ASI Series Series B: Physics, 1991, , 297-315. | 0.2 | 2 |
| 2447 | An Experimental Assessment of Continuum Models of Dendritic Growth. NATO ASI Series Series B: Physics, 1991, , 45-56. | 0.2 | 1 |
| 2448 | Pattern Formation during Crystal Growth: Theory. , 1982, , 309-336. | | 1 |
| 2449 | Ice Crystal Growth in Aqueous Solutions. , 1987, , 173-199. | | 2 |
| 2450 | Directional Growth in Viscous Fingering. NATO ASI Series Series B: Physics, 1990, , 327-337. | 0.2 | 13 |
| 2451 | Growth Patterns: From Stable Curved Fronts to Fractal Structures. NATO ASI Series Series B: Physics, 1991, , 203-227. | 0.2 | 7 |
| 2452 | Dendritic Crystal Growth: Overview. NATO ASI Series Series B: Physics, 1991, , 67-73. | 0.2 | 3 |
| 2453 | Theory of Crystal Growth. , 1975, , 233-282. | | 5 |
| 2454 | Dynamics of Dendritic Growth Interacting with Convective Flow. Advances in Mechanics and Mathematics, 2002, , 113-302. | 0.2 | 3 |
| 2455 | Structural Changes in SiGe/Si Layers Induced by Fast Crystallization. Springer Series in Materials Science, 2014, , 79-105. | 0.4 | 2 |

ARTICLE IF CITATIONS # Hierarchical Self-organization and Self-assembly: Metal Nanoparticles in Polymer Matrices. Springer 2456 0.4 1 Series in Materials Science, 2015, , 1-10. Control Diffusion Solidification (CDS): An Overview of Mechanism and Application., 2014, , 89-97. 2457 Unidirectional Solidification and Mullinsâ€"Sekerka Instability. Springer Series in Synergetics, 2017, , 2458 0.2 1 29-74. Shaped Crystal Growth., 2010,, 509-556. 2460 Short Term Metallurgy and Hot Cracking During Laser Beam Welding of Austenitic Stainless Steels., 2461 2 2011, , 103-129. Metals and Alloys., 1987,, 477-516. Simulation and Numerical Analysis of Dendritic Growth., 2001, , 225-252. 2463 2 Convergence of the Phase-Field Equations to the Mullins-Sekerka Problem with Kinetic Undercooling. 2464 , 1999, , 413-471. Crystal Growth, Surface Phase Transitions and Thermomolecular Pressure., 1999, , 39-67. 2465 6 Bifurcations in Particle Physics and in Crystal Growth. Springer Series in Synergetics, 1985, , 279-299. 0.2 2466 Mass and Heat Transport. Growth Shapes and Their Stability. Springer Series in Solid-state Sciences, 2467 3 0.3 1984, , 208-245. Melting and Solidification. Springer Series in Materials Science, 1987, , 83-145. 2468 0.4 Patterns with Open Branches or Closed Networks: Growth in Scalar or Tensorial Fields., 2001, , 1-22. 2469 2 Dendritic Growth., 2001, , 365-402. 2470 Directional Solidification of Liquid Crystals., 1988, 93-100. 2471 2 Pattern Formation in Dendritic Solidification., 1988, , 133-141. 2472 Theories of Mushy Zones: Applications to Alloy Solidification, Magma Transport, Frost Heave and 2473 8 Igneous Intrusions. , 1987, , 159-199. 2474 A Bibliography of Partially Solidified Systems., 1987, , 467-500.

| # 2475 | ARTICLE Theory of Microstructural Development During Rapid Solidification. , 1986, , 260-267. | IF | Citations 91 |
|-----------|---|-----|-----------------|
| 2476 | Pulsed Laser Irradiation of Semiconductors : Thermal Description. , 1983, , 71-108. | | 2 |
| 2477 | Theory of Crystal Growth. , 1983, , 197-236. | | 3 |
| 2478 | Instabilities in the Pulsed Laser Irradiation Induced Melting and Solidification. , 1984, , 367-384. | | 2 |
| 2479 | Morphological Instability: Dendrites, Seaweed, and Fractals. , 1995, , 193-208. | | 3 |
| 2480 | The Dynamics of Mushy Layers. , 1992, , 113-138. | | 56 |
| 2481 | Stimulated Convection and Morphological Instability. , 1992, , 23-25. | | 1 |
| 2482 | Asymptotic Properties of Reaction-Diffusion Systems Modeling Chemotaxis. , 2000, , 89-108. | | 4 |
| 2483 | Crystal Growth and Intracrystalline Zonation Patterns in Hydrothermal Environments. , 1999, , 65-84. | | 4 |
| 2484 | Localized Morphologies Observed in Directional Solidification of Binary Alloys into Three-Dimensional Flows. , 2001, , 5-12. | | 1 |
| 2485 | Laser Surface Treatments: Microstructural Aspects. Euro Courses Mechanical and Materials Science, 1992, , 235-252. | 0.0 | 4 |
| 2486 | Configurational Forces as Basic Concepts of Continuum Physics. , 2000, , . | | 94 |
| 2487 | Interdendritic Spacing: Part II. A Comparison of Theory and Experiment. , 1988, , 353-358. | | 2 |
| 2488 | MORPHOLOGICAL INSTABILITIES DURING PHASE TRANSFORMATIONS. , 1984, , 147-162. | | 4 |
| 2489 | Microstructure and Properties of Rapidly Solidified Aluminum-Transition Metal Alloys. Treatise on Materials Science and Technology, 1989, , 409-444. | 0.1 | 6 |
| 2490 | Supersaturated Alloys, Solute Trapping, and Zone Refining**Research sponsored by the Division of Materials Sciences, U.S. Department of Energy under contract W-7405-eng-26 with Union Carbide Corporation , 1982, , 111-146. | | 12 |
| 2491 | Microstructure and Topography. , 1982, , 147-201. | | 2 |
| 2492 | RAPID SOLIDIFICATION. , 1980, , 89-103. | | 57 |

| # | Article | IF | Citations |
|------|---|-----|-----------|
| 2493 | DAMAGE ANNEALING IN SILICON AND ELECTRICAL ACTIVITY. , 1984, , 139-210. | | 5 |
| 2494 | Flow and fracture. , 1983, , 231-256. | | 42 |
| 2495 | INTERFACE MORPHOLOGY DURING RAPID SOLIDIFICATION. , 1985, , 807-810. | | 1 |
| 2496 | CELLULAR SOLIDIFICATION IN NI BASED MELT SPUN ALLOYS. , 1985, , 811-814. | | 3 |
| 2497 | Experiments on Spin-Polarized Liquid 3He. Modern Problems in Condensed Matter Sciences, 1990, 26, 881-942. | 0.1 | 1 |
| 2498 | ICE AND SNOW MECHANICS A CHALLENGE TO THEORETICAL AND APPLIED MECHANICS. , 1985, , 163-217. | | 8 |
| 2499 | Analysis of Self-Organized Patterned Surface Oxide Spots on Ejected Spatter Produced during Laser Powder Bed Fusion. Additive Manufacturing, 2020, 35, 101320. | 1.7 | 5 |
| 2501 | Computational Modelling of Heat/Mass Transfer Near the Liquid-Solid Interface During Rapid Solidification of Binary Metal Alloys Under Laser Treatment. , 0, . | | 1 |
| 2504 | Dynamiques interfaciales dans l'instabilit $	ilde{A}$ $	ilde{C}$ de l'imprimeur. Annales De Physique, 1994, 19, 659-690. | 0.2 | 5 |
| 2505 | Solutal convection and morphological instability in directional solidification of binary alloys II. Effect of the density difference between the two phases. Journal De Physique, 1985, 46, 1657-1665. | 1.8 | 26 |
| 2506 | Solutal convection and morphological instability in directional solidification of binary alloys. Journal De Physique, 1985, 46, 401-413. | 1.8 | 42 |
| 2507 | Polarized 3He : dendritic melting. Journal De Physique, 1986, 47, 723-725. | 1.8 | 12 |
| 2508 | The Mullins-Sekerka instability in directional solidification of quasi-azeotropes. Journal De Physique, 1986, 47, 1077-1090. | 1.8 | 10 |
| 2509 | Capillary instabilities in deep cells during directional solidification. Journal De Physique, 1989, 50, 2999-3006. | 1.8 | 15 |
| 2510 | Cusp instability in cellular growth. Journal De Physique, 1989, 50, 3007-3019. | 1.8 | 18 |
| 2511 | Wavelength selection in rotating solidification of binary mixtures. Journal De Physique, 1989, 50, 971-994. | 1.8 | 12 |
| 2512 | Cellular arrays during upward solidification of Pb-30 wt% T1 alloys. Journal De Physique, 1990, 51, 625-637. | 1.8 | 11 |
| 2513 | Stability of flat interfaces during semidiscrete solidification. ESAIM: Mathematical Modelling and Numerical Analysis, 2002, 36, 573-595. | 0.8 | 1 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2514 | Analytical solution of a binary melt solidification model in the presence of a quasi-equilibrium mushy region for the case of the non-linear phase diagram. Journal of Physics Condensed Matter, 2020, 32, 304003. | 0.7 | 8 |
| 2515 | Analysis and application of a continuation method for a self-similar coupled Stefan system. Quarterly of Applied Mathematics, 1993, 51, 405-423. | 0.5 | 5 |
| 2517 | Self-similar and disordered front propagation in a radial Hele-Shaw channel with time-varying cell depth. Physical Review Fluids, 2019, 4, . | 1.0 | 21 |
| 2518 | Role of anisotropy in determining stability of electrodeposition at solid-solid interfaces. Physical Review Materials, 2017, 1, . | 0.9 | 24 |
| 2519 | Au-rich filamentary behavior and associated subband gap optical absorption in hyperdoped Si. Physical Review Materials, 2017, 1, . | 0.9 | 29 |
| 2520 | Propagative selection of tilted array patterns in directional solidification. Physical Review Materials, 2018, 2, . | 0.9 | 15 |
| 2521 | On the theory of directional crystallization with a two-phase region with vigorous convection. European Physical Journal: Special Topics, 2020, 229, 2951-2959. | 1.2 | 2 |
| 2522 | Microstructural characteristics of three RS aluminium alloys: Al– 4Cr–1 Fe, Al–6·43Cr-1·67Zr, and Al–5Cr–2Zr. Materials Science and Technology, 1990, 6, 528-534. | 0.8 | 3 |
| 2523 | Design of powder metallurgy aluminium alloys for applications at elevated temperatures Part 1 Microstructure of high pressure gas atomized powders. Materials Science and Technology, 1991, 7, 334-340. | 0.8 | 3 |
| 2524 | Dendrite growth in eutectic alloys: the coupled zone. International Materials Reviews, 1979, 24, 177-204. | 9.4 | 144 |
| 2525 | Rapid solidification. International Materials Reviews, 1982, 27, 185-208. | 9.4 | 43 |
| 2526 | Metamorphic mineral reactions: Porphyroblast, corona and symplectite growth. , 2017, , 469-540. | | 14 |
| 2527 | Simultaneous measurement of temperature and concentration during faceted cellular array growth under microgravity. World Journal of Engineering, 2014, 11, 41-48. | 1.0 | 5 |
| 2528 | On Similarity Solutions and Interface Reactions for a Vector-Valued Stefan Problem. Nonlinear Analysis: Modelling and Control, 2007, 12, 269-288. | 1.1 | 2 |
| 2529 | Numerical modeling and prediction of weld microstructure in high-strength steel welding (Review). The Paton Welding Journal, 2014, 2014, 2-10. | 0.1 | 4 |
| 2530 | Direct numerical Modelling of formation of weld metal dendrite structure with disperse refractory inoculants. The Paton Welding Journal, 2016, 2016, 13-20. | 0.1 | 1 |
| 2531 | Interdiffusion in Ternary Systems with Two-Phase Zones—Approaches and Models. Progress in Physics of Metals, 2003, 4, 81-122. | 0.5 | 2 |
| 2532 | Thermal effects of scanning speed and constitutional supercooling during zone-melting recrystallization of silicon-on-insulator structures. Journal of Materials Research, 1992, 7, 124-129. | 1.2 | 8 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2533 | The role of order and disorder in thermal and material sciences part 1: Heat and society. Journal of Mining and Metallurgy, Section B: Metallurgy, 2002, 38, 1-22. | 0.3 | 11 |
| 2534 | The Observation of Cellular Breakdown of Unidirectional Solidification of Al-Cu Alloy. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1970, 34, 690-696. | 0.2 | 3 |
| 2535 | Morphology of Solid-Liquid Interfaces of Al-Cu Alloy, and Solute Distributions at the Interfaces. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1974, 38, 1-8. | 0.2 | 2 |
| 2536 | Growth of Composites in Off-Eutectic Alloys. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1977, 41, 498-504. | 0.2 | 2 |
| 2537 | Influence of Centrifugal Forces on the Solid-Liquid Interfacial Stability Condition. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1983, 47, 1004-1009. | 0.2 | 2 |
| 2538 | Analysis of Instability at Solid-Liquid Interface from Molar Flux Balance in Diffuse Interface Layer. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2000, 64, 759-762. | 0.2 | 1 |
| 2539 | Influences of Flow Intensity, Cooling Rate and Nucleation Density at Ingot Surface on Deflective Growth of Dendrites for Al-based Alloy. ISIJ International, 2009, 49, 1010-1018. | 0.6 | 4 |
| 2540 | Quantitative Phase-field Modeling and Simulations of Solidification Microstructures. ISIJ International, 2020, 60, 2745-2754. | 0.6 | 25 |
| 2541 | Relation between Structure of Ingot and Solidification Variables. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1972, 58, 1302-1316. | 0.1 | 3 |
| 2542 | Formation of Micro Solidification Structures of Steels. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1975, 61, 3077-3091. | 0.1 | 7 |
| 2543 | Theoretical Calculation of the Solid/ Liquid Interfacial Free Energy for Iron, Cobalt and Nickel. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1977, 63, 1564-1571. | 0.1 | 15 |
| 2545 | Effect of Growth Parameters on Substructure Spacing in NaCl Ice Crystals. Journal of Glaciology, 1969, 8, 153-164. | 1.1 | 13 |
| 2547 | Heat and salt transfer associated with formation of sea-ice. Tellus, 1977, 29, 151-160. | 0.4 | 3 |
| 2549 | On the regularity of the interface of a thermodynamically consistent two-phase Stefan problem with surface tension. Interfaces and Free Boundaries, 2016, 17, 555-600. | 0.2 | 12 |
| 2550 | Simulation of Solidification Parameters during Zr Based Bulk Metallic Glass Matrix Composite's (BMGMCs) Additive Manufacturing. Engineering, 2018, 10, 85-108. | 0.4 | 2 |
| 2551 | Self-Organizing Processes in Semiconductor Materials Science on the Example of Nanostructuring of por-Si. Materials Sciences and Applications, 2013, 04, 1-11. | 0.3 | 2 |
| 2553 | Investigating the Structure, Microstructure, and Texture in Selective Laser-Melted Sterling Silver 925. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 5329-5341. | 1.1 | 8 |
| 2554 | Mathematical modeling of bulk and directional crystallization with the moving phase transition layer. Mathematical Methods in the Applied Sciences, 2022, 45, 8011-8021. | 1.2 | 6 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2555 | Anisotropy of Microstructure and Its Influence on Thermoelectricity: The Case of Cu ₂ Te–Sb ₂ Te ₃ Eutectic. ACS Applied Energy Materials, 2021, 4, 11867-11877. | 2.5 | 2 |
| 2556 | Exotic three-phase microstructures in the ternary Ag-Cu-Sb eutectic system. Acta Materialia, 2021, 221, 117400. | 3.8 | 9 |
| 2557 | Perturbative solution of a propagating interface in the phase field model. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 103203. | 0.9 | 3 |
| 2558 | Optimizing ACRT to reduce inclusion formation during the VGF growth of cadmium zinc telluride: II. Application to experiments. Journal of Crystal Growth, 2021, 576, 126385. | 0.7 | 5 |
| 2559 | Optimizing ACRT to reduce inclusion formation during the VGF growth of cadmium zinc telluride: I. Computational approach. Journal of Crystal Growth, 2021, 576, 126386. | 0.7 | 2 |
| 2560 | Dendrite Growth of Succinonitrile-Acetone Alloy between Continuous Fibers. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 2000, 64, 250-256. | 0.2 | 2 |
| 2561 | Studies of Bacterial Cooperative Organization. , 2000, , 135-145. | | 0 |
| 2563 | Introduction and Preliminaries. Mechanical Engineering Series, 2001, , 1-81. | 0.1 | 1 |
| 2564 | Solid-Solid-Fluid Systems. Mechanical Engineering Series, 2001, , 491-580. | 0.1 | 0 |
| 2565 | Mathematical Meristems: The Singularities of Laplacian Growth. , 2001, , 445-450. | | 0 |
| 2566 | Transport properties. , 2001, , 275-311. | | 0 |
| 2567 | Basic properties. , 2001, , 463-480. | | 0 |
| 2568 | Solutions of 4He in 3He. , 2001, , 434-447. | | 0 |
| 2569 | Crystal shapes and defects. , 2001, , 873-916. | | 0 |
| 2570 | Magnetic resonance properties. , 2001, , 567-612. | | 1 |
| 2571 | Surfaces and interfaces. , 2001, , 153-175. | | 0 |
| 2572 | Motion of particles. , 2001, , 106-132. | | 0 |
| 2573 | Acoustic and temperature waves. , 2001, , 253-274. | | 0 |

| # | Article | IF | CITATIONS |
|------|--|----|-----------|
| 2574 | Basic properties. , 2001, , 206-252. | | 0 |
| 2575 | Fermi liquid in equilibrium. , 2001, , 38-54. | | 0 |
| 2576 | Collective modes. , 2001, , 613-648. | | 0 |
| 2577 | Fermi gas. , 2001, , 17-37. | | 0 |
| 2578 | Low-dimensional structures. , 2001, , 917-969. | | 0 |
| 2579 | Paramagnetism. , 2001, , 822-831. | | 0 |
| 2580 | Theory of spin-polarized solutions. , 2001, , 328-339. | | 0 |
| 2581 | Superfluidity. , 2001, , 533-566. | | 0 |
| 2582 | Rotating superfluid. , 2001, , 716-754. | | 0 |
| 2583 | Further theories. , 2001, , 133-152. | | 0 |
| 2584 | Low-dimensional structures. , 2001, , 372-409. | | 0 |
| 2585 | Hydrodynamics. , 2001, , 649-669. | | 0 |
| 2586 | Spin-polarized liquid. , 2001, , 176-204. | | 0 |
| 2588 | Properties of spin-polarized solutions. , 2001, , 340-371. | | 0 |
| 2589 | Neutron and photon scattering. , 2001, , 312-327. | | 0 |
| 2591 | Transport properties. , 2001, , 55-81. | | 0 |
| 2592 | Surfaces and interfaces. , 2001, , 670-715. | | 0 |
| 2593 | Antiferromagnetism in the b.c.c. phase. , 2001, , 832-863. | | 0 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2594 | Quantum crystal. , 2001, , 757-789. | | 0 |
| 2595 | Multiple phases. , 2001, , 509-532. | | 0 |
| 2596 | Lattice dynamics. , 2001, , 790-821. | | 0 |
| 2597 | Search for superfluidity in mixtures. , 2001, , 448-460. | | 0 |
| 2598 | Ferromagnetism in the h.c.p. phase. , 2001, , 864-872. | | 0 |
| 2599 | Collective modes. , 2001, , 82-105. | | 0 |
| 2600 | BCS superfluids. , 2001, , 481-508. | | 0 |
| 2601 | Micro-Scale Phenomena and Interface Dynamics. , 2002, , 116-144. | | 0 |
| 2602 | Morphological Instability and Inclusion Formation During Crystal Growth from a Flowing Solution. , 2002, , 103-116. | | 0 |
| 2603 | Eutectic Solidification. , 2002, , 186-209. | | 2 |
| 2604 | Mass-Transport in an Austenitic Stainless Steel Under High-Flux, Low-Energy Nitrogen Ion Bombardment at Elevated Temperature. , 2002, , 335-360. | | 0 |
| 2605 | Some problems in the investigation of the processes of directional crystallization under microgravity (creating the MORPHOS installation). KosmìÄna Nauka ì Tehnologìâ, 2002, 8, 19-27. | 0.1 | 1 |
| 2606 | Effects of Metallurgical Variables on Dealloying Corrosion. , 2003, , 287-293. | | 3 |
| 2607 | Solidification microstructure, dendrites and convection. , 2004, , 1-53. | | 0 |
| 2608 | ON THE STRUCTURE OF A MUSH. Bulletin of the Korean Mathematical Society, 2004, 41, 283-297. | 0.3 | 0 |
| 2609 | Polymeric Additives as Modifiers of Hydrocarbon Crystallization Behavior. , 2004, , 125-154. | | 0 |
| 2610 | Micro- and Macrostructures. , 2005, , 403-415. | | 0 |
| 2613 | Chapter B.IX: Overview of growth phenomena and the Mullins-Sekerka instability. , 2005, , 579-622. | | 0 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2615 | Theoretical and Experimental Study of Stationary Profiles of a Water-Ice Mobile Solidification Interface. Advances in Chemical Physics, 0, , 163-205. | 0.3 | 1 |
| 2616 | Effect of Oxygen in the Synthesis of ZnO Nanowires. Korean Journal of Materials Research, 2007, 17, 458-462. | 0.1 | 1 |
| 2617 | Polymer Crystallization. Seikei-Kakou, 2008, 20, 78-83. | 0.0 | 0 |
| 2618 | Fractal Pattern Formed in Ag-In Electrodeposits. The Open Electrochemistry Journal, 2009, 1, 28-31. | 0.5 | 0 |
| 2619 | Convection and Control in Melt Growth of Bulk Crystals. , 2010, , 1215-1242. | | 0 |
| 2620 | Restrictions of Physical Properties on Solidification Microstructures of Al-based Binary Alloys by Cellular Automaton. ISIJ International, 2010, 50, 1835-1842. | 0.6 | 1 |
| 2621 | The mechanism of directional cellular growth with shear flow. Wuli Xuebao/Acta Physica Sinica, 2011, 60, 098106. | 0.2 | 1 |
| 2622 | Microjoining with Laser and Electron Beams. , 2011, , 625-637. | | 0 |
| 2624 | Phase field modeling of the growth and competition behavior of tilted dendrites in directional solidification. Wuli Xuebao/Acta Physica Sinica, 2012, 61, 118103. | 0.2 | 6 |
| 2625 | Qualititative Analysis of Interface Behavior under First Phase Transition. Journal of Crystallization Process and Technology, 2012, 02, 25-29. | 0.6 | 0 |
| 2626 | Effect of surface tension anisotropy on the growth patterns of cellulars in directional solidification. Wuli Xuebao/Acta Physica Sinica, 2012, 61, 228106. | 0.2 | 4 |
| 2627 | Effect of crystallographic orientation on instability behavior of planar interface in directional solidification. Wuli Xuebao/Acta Physica Sinica, 2012, 61, 148104. | 0.2 | 2 |
| 2628 | The Physics of Weld Bead Defects. , 0, , . | | 2 |
| 2631 | The increase of crystal growing rate without damaging the smoothness of interface border. Functional Materials, 2013, 20, 123-126. | 0.4 | 0 |
| 2632 | On Linear Analysis of the Movement of the Interface under Directed Crystallization. Advances in Chemical Engineering and Science, 2014, 04, 103-119. | 0.2 | 1 |
| 2633 | Effect of anisotropic surface tension on deep cellular crystal growth in directional solidification. Wuli Xuebao/Acta Physica Sinica, 2014, 63, 038101. | 0.2 | 2 |
| 2634 | 連続鋳é€ã®å‡å›ºã«ã∰,ã┥. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1973, 59, A13-A21. | 0.1 | 1 |
| 2635 | Effect of the Moving Direction of the Interface on Morphological Stability of α⁄β Phase Interfaces in the Cu-Zn System. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1976, 40, 1117-1122. | 0.2 | 2 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2637 | Melt Growth. , 1982, , 489-508. | | 0 |
| 2638 | Influence of the Centrifugal Force on the Dendrite Growth of Aluminum-Copper Alloy. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1984, 48, 1086-1091. | 0.2 | 0 |
| 2639 | DYNAMICS OF DENDRITIC PATTERN FORMATION. , 1984, , 129-146. | | 0 |
| 2640 | Morphological Stability During Unidirectional Solidification : Influence of Melt Rheology and Marangoni Convection. , 1984, , 263-270. | | 0 |
| 2643 | Influence of the Centrifugal Force on the Interfacial Morphology of Aluminum-Silicon Alloy. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1985, 49, 753-758. | 0.2 | 0 |
| 2644 | SOME FUNDAMENTAL ASPECTS OF SOLIDIFICATION IN A SUPERCOOLED MELT. , 1985, , 801-805. | | 1 |
| 2645 | Heat and Mass Transfer in Pulsed Laser Heating. , 1986, , 213-233. | | 0 |
| 2647 | Solidification. , 1986, , 149-167. | | 0 |
| 2648 | Macroscopic Theory of Crystallization from a Melt with Capillary Shaping: Czochralski's and Stepanov's Methods. , 1987, , 163-169. | | 0 |
| 2649 | Modelling mushy regions. , 1987, , 1-7. | | 5 |
| 2650 | Some Aspects of the Weakly Nonlinear Theory of the Morphological Instability. , 1987, , 121-129. | | 6 |
| 2651 | Nonequilibrium Phase Transitions. , 1987, , 67-80. | | 0 |
| 2652 | Some Aspects of the Stefan Model for Phase Transitions. , 1987, , 111-119. | | 0 |
| 2653 | Macroscopic Theory of Crystallization from a Melt with Capillary Shaping: General Formulation. , 1987, , 157-161. | | 1 |
| 2654 | Growth of Highly-Anisotropic Crystalline Structures. , 1987, , 318-366. | | 0 |
| 2655 | Interfacial Pattern Formation: A Progress Report. Springer Series in Solid-state Sciences, 1987, , 374-385. | 0.3 | 0 |
| 2656 | Nonlinear Interactions of Interface Structures of Differing Wavelength in Directional Solidification. Springer Series in Synergetics, 1987, , 180-190. | 0.2 | 1 |
| 2657 | Challenges in Biomedical Heat Transfer-Modeling Interface Phenomena. , 1988, , 1732-1735. | | 0 |
| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2658 | THEORY OF DENDRITIC GROWTH—I. ELEMENTS OF A STABILITY ANALYSIS**Research supported by AFOSR Grant F 44620–76-C-0103 and also in part by the CMU Center for the Joining of Materials , 1988, , 281-287. | | 0 |
| 2659 | Some Problems for Physicists in First Order Diffusional Phase Transformations in Crystalline Solids. Springer Proceedings in Physics, 1988, , 30-49. | 0.1 | 0 |
| 2660 | Cellular Morphological Instabilities During Directional Solidification: Thin Sample Experiments. NATO ASI Series Series B: Physics, 1988, , 587-593. | 0.2 | 0 |
| 2661 | Cellular and Dendritic Fronts in Directional Solidification: Experiments by the Light of Pattern Selection. Springer Series in Synergetics, 1988, , 50-62. | 0.2 | 0 |
| 2663 | Effect of Solidification Front Velocity on the Characteristics of Aluminium-rich Al–Mn Alloy Solutions Extended by Rapid Solidification. , 1988, , 201-205. | | 0 |
| 2664 | Free Energy of a Stepped Surface. , 1988, , 145-153. | | 0 |
| 2665 | On the Analogy of Anomalous Viscous Fingers with Crystalline Dendrites. Springer Series in Synergetics, 1988, , 63-77. | 0.2 | 2 |
| 2666 | Interfacial Stability during Solidification under Microgravity Environment. Tetsu-To-Hagane/Journal of the Iron and Steel Institute of Japan, 1990, 76, 1211-1218. | 0.1 | 0 |
| 2667 | Directional Solidification of a Faceted Crystal. NATO ASI Series Series B: Physics, 1990, , 451-456. | 0.2 | 0 |
| 2668 | New Instabilities in Directional Solidification of Succinonitrile. , 1990, , 135-146. | | 0 |
| 2669 | Stability of Continuous Cellular Automata. Frontiers of Computer Science, 1990, , 27-45. | 0.1 | 0 |
| 2670 | Nonstationary Cell Shapes in Directional Solidification. NATO ASI Series Series B: Physics, 1990, , 347-349. | 0.2 | 0 |
| 2671 | Stationnary Cells in Directional Solidification. , 1990, , 147-157. | | 0 |
| 2672 | The effects of crystalline anisotrophy and buoyancy-driven convection on morphological stability. , 1990, , 44-51. | | 0 |
| 2673 | Fluid Flow and Microstructure Development. , 1990, , 411-436. | | 0 |
| 2674 | Wavelength Selection and Hidden Ramps in Directional Solidification. Woodward Conference, 1990, , 56-67. | 0.3 | 0 |
| 2675 | Dynamics of a Moving Nematic-Isotropic Interface. Woodward Conference, 1990, , 181-183. | 0.3 | 0 |
| 2676 | Routes to Cell Formation and Hidden Ramps in Directional Solidification. NATO ASI Series Series B: Physics, 1990, , 457-473. | 0.2 | 0 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2677 | Instability During Directional Solidification: Gravitational Effects. , 1990, , 369-384. | | 1 |
| 2678 | Pattern Formation in Directional Solidification. NATO ASI Series Series B: Physics, 1991, , 167-175. | 0.2 | 0 |
| 2679 | Directional Growth of Dilute Mixtures and Lamellar Eutectics. NATO ASI Series Series B: Physics, 1991, , 105-118. | 0.2 | 0 |
| 2680 | Modelling of growth and microstructure selection in rapid solidification: a progress report. , 1991, , 33-39. | | 0 |
| 2681 | Directional Growth of a Faceted Smectic B Plastic Crystal. NATO ASI Series Series B: Physics, 1991, , 177-185. | 0.2 | 0 |
| 2682 | An Experimental Assessment of Continuum Models of Dendritic Growth. NATO ASI Series Series B: Physics, 1991, , 75-86. | 0.2 | 0 |
| 2683 | A Flat Interface and its Unfolding Bifurcations. NATO ASI Series Series B: Physics, 1991, , 119-129. | 0.2 | 0 |
| 2684 | Cell Shapes and Wavelength Selection in Directional Solidification. NATO ASI Series Series B: Physics, 1991, , 141-146. | 0.2 | 1 |
| 2686 | INTERFACE INSTABILITIES IN LIQUID CRYSTALS. , 1991, , 59-70. | | 0 |
| 2687 | Ground based preparation for microgravity growth of alloy semiconductors. , 1991, , . | | 0 |
| 2688 | A fixed-grid finite element method for solidification. , 1991, , 235-241. | | 0 |
| 2690 | Shape of Stationary and Travelling Cells in the Printer's Instability. , 1991, , 217-223. | | 3 |
| 2691 | Electrodeposits: Phenomenology and Theory. NATO ASI Series Series B: Physics, 1991, , 253-263. | 0.2 | 0 |
| 2692 | A New Formulation for Dendritic Crystal Growth in two Dimensions. NATO ASI Series Series B: Physics, 1991, , 87-104. | 0.2 | 1 |
| 2693 | Effect of Modulated Taylor-Vortex Flows on Crystal-Melt Interfaces. , 1992, , 19-21. | | 0 |
| 2695 | Primary dendrite arm spacings and tip radii in directionally solidified Ni3Al. , 1992, , 240-246. | | 0 |
| 2696 | Effect of Modulated Taylor-Couette Flows on Crystal-Melt Interfaces: Theory and Initial Experiments. The IMA Volumes in Mathematics and Its Applications, 1992, , 81-100. | 0.5 | 0 |
| 2697 | Morphological Stability and Convective Flow: Some Old and New Problems. , 1992, , 1-14. | | 1 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2698 | Weakly Nonlinear Morphological Instability Analysis of a Sphere Crystallizing from an Undercooled Melt. , 1992, , 53-55. | | 0 |
| 2699 | A Strongly Nonlinear Analysis of Morphological Stability of a Binary Alloy: Solutal Convection and the Effect of Density Mismatch. , 1992, , 73-76. | | Ο |
| 2700 | Microscale Coupling of Solidification and Flow. , 1992, , 31-52. | | 0 |
| 2703 | Lamellar Spacings Determined by Solid-Liquid Interfacial Morphology of Unidirectionally Solidified Al-Base Binary Eutectic Alloys. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1993, 57, 1054-1063. | 0.2 | 0 |
| 2704 | Fundamentals of Weld Solidification. , 1993, , 45-54. | | 2 |
| 2705 | Observation expérimentale de la morphologie "en algue" et d'états asymétriques appariés en solidification directionnelle de films minces d'alliages CBr4-C2Cl6. Annales De Physique, 1994, 19, 645-658. | 0.2 | 0 |
| 2706 | Einblick in physikalische Welten. , 1994, , 203-226. | | 0 |
| 2708 | Zellen organisieren sich selbst. , 1994, , 143-159. | | 0 |
| 2709 | Shapes and dynamics of Laplacian growth. NATO ASI Series Series B: Physics, 1995, , 63-83. | 0.2 | 1 |
| 2710 | Unidirectional Solidification of Al-Cu Alloy Films between Solid Plates. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1996, 60, 863-869. | 0.2 | 2 |
| 2711 | Crystallization front Structure During Growth of Single Crystals from a Melt in Various Crystallographic Directions. , 1996, , 139-151. | | 1 |
| 2712 | Solidification of Agcu Alloys at High Growth Rates Produced by Continuous Laser Melt Quenching. , 1996, , 93-119. | | 1 |
| 2713 | Interfacial wave theory of dendritic growth and a comparison with experiments. , 1996, , 3929-3940. | | 0 |
| 2714 | Stability of Tip of Needle Dendrite for SCN-Acetone Alloy —Experimental Study for Langer/Müller-Krumbhaar Conjecture—. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1997, 61, 1101-1107. | 0.2 | 3 |
| 2716 | Rapidly Solidified Structures of Al-0.5 mass%Cu Alloy Obtained by High Power CO ₂ Laser Grazing. Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals, 1998, 62, 577-585. | 0.2 | 2 |
| 2718 | Scaling Properties of Interfaces and Membranes. , 1998, , 227-245. | | 0 |
| 2719 | Schnelle Erstarrung. , 1999, , 208-223. | | 0 |
| 2720 | Introduction: Fifty Years of Research on Evolving Phase Interfaces. , 1999, , 1-29. | | 3 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2721 | Multiphase Thermomechanics with Interfacial Structure 1. Heat Conduction and the Capillary Balance Law. , 1999, , 149-175. | | 25 |
| 2722 | Nonequilibrium Growth of Crystals from Supersaturated Solutions. , 1999, , 163-175. | | 0 |
| 2723 | Einphasige metallische Erstarrung. , 1999, , 129-163. | | 1 |
| 2724 | Phase Field Modeling of Microstructure Evolution in Zirconium Base Alloys. , 2015, , 95-117. | | 0 |
| 2725 | Effects of Metallurgical Variables on Dealloying Corrosion[1]. , 2015, , 82-88. | | 1 |
| 2726 | Morphological stability analysis of the self-similar solidification front in the case of thermodiffusion. Part I. The self-similar solutions. Advanced Studies in Theoretical Physics, 0, 9, 737-743. | 0.1 | 0 |
| 2727 | Effect of surface tension anisotropy on the interface morphological stability of deep cellular crystal. Wuli Xuebao/Acta Physica Sinica, 2016, 65, 096803. | 0.2 | 0 |
| 2729 | Direct numerical Modelling of formation of weld metal dendrite structure with disperse refractory inoculants. Avtomaticheskaya Svarka, 2016, 2016, 15-22. | 0.0 | 0 |
| 2730 | Growth of Multicrystalline Silicon for Solar Cells: Dendritic Cast Method. , 2017, , 1-22. | | 0 |
| 2732 | Spatially Periodic Deep-Cellular Growth. Springer Series in Synergetics, 2017, , 397-501. | 0.2 | 0 |
| 2733 | Effects of anisotropic interface kinetics and surface tension on deep cellular crystal growth in directional solidification. Wuli Xuebao/Acta Physica Sinica, 2017, 66, 106801. | 0.2 | 0 |
| 2734 | Mechanistic study of the accelerated crucible rotation technique applied to vertical Bridgman growth of cadmium zinc telluride. , 2017, , . | | 0 |
| 2735 | Effect of anisotropic surface tension on morphological stability of lamellar eutectic growth in directional solidification. Wuli Xuebao/Acta Physica Sinica, 2018, 67, 118103. | 0.2 | 1 |
| 2736 | The Formation of Two-Phase Periodic Structures. Aspects in Mining & Mineral Science, 2018, 1, . | 0.0 | 0 |
| 2737 | The Analysis of Morphological Stability of a Recrystallization Front. Progress in Physics of Metals, 2018, 19, 185-194. | 0.5 | 0 |
| 2738 | Non-Steady-State Growth During Directional Solidification of Various Crystallographic Orientations. Metallofizika I Noveishie Tekhnologii, 2018, 40, 661-681. | 0.2 | 0 |
| 2740 | Transport Mechanism and Distribution of Melt in Earth and Planetary Interiors. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 2019, 29, 94-102. | 0.1 | 0 |
| 2741 | Recent progress of solidification of suspensions. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 018101. | 0.2 | 0 |

| # | Article | IF | CITATIONS |
|------|---|-----|-----------|
| 2743 | Growth of Multicrystalline Silicon for Solar Cells: Dendritic Cast Method. , 2019, , 193-214. | | 0 |
| 2744 | Analysis of the Stability of \$alpha → gamma\$ Plane Front of Recrystallization in Ferritic Alloys During Carburization. Metallofizika I Noveishie Tekhnologii, 2019, 41, 13-25. | 0.2 | Ο |
| 2745 | Phase-Field Microstructure Solidification of Al–2 wt% Si Alloys. Journal of Engineering Materials and Technology, Transactions of the ASME, 2020, 142, . | 0.8 | 2 |
| 2746 | The effects of ACRT on melt undercooling during the growth of CZT via the traveling heater method: Ekman versus Taylor-Görtler flows. Journal of Crystal Growth, 2022, 577, 126409. | 0.7 | 7 |
| 2747 | On the instability of the melting film over a moving hot plate. Physics of Fluids, 2020, 32, 122107. | 1.6 | 0 |
| 2748 | A second order accurate fixed-grid method for multi-dimensional Stefan problem with moving phase change materials. Applied Mathematics and Computation, 2022, 416, 126719. | 1.4 | 2 |
| 2749 | Surface Laplacian of interfacial thermochemical potential: its role in solid-liquid pattern formation. Npj Microgravity, 2021, 7, 41. | 1.9 | 1 |
| 2753 | ELAFINT : A computational method for fluid flows with free and moving boundaries. , 1995, , 221-227. | | 0 |
| 2755 | Comparative Analysis of the Occurrence of Water Superheating and Instability of the Boiling Front in a Porous Medium. Doklady Physics, 2020, 65, 333-337. | 0.2 | 0 |
| 2756 | Stability-based optimization of ACRT for the growth of CZT by the traveling heater method. Journal of Crystal Growth, 2022, 579, 126446. | 0.7 | 4 |
| 2758 | Toward multiscale simulations of tailored microstructure formation in metal additive manufacturing. Materials Today, 2021, 51, 65-86. | 8.3 | 16 |
| 2759 | Controlling homogeneity of the first lithiation in methylated amorphous silicon. Electrochimica Acta, 2022, 403, 139655. | 2.6 | 1 |
| 2760 | Phase-field modeling of wormhole formation and growth in carbonate matrix acidizing. Journal of Petroleum Science and Engineering, 2022, 209, 109866. | 2.1 | 6 |
| 2761 | Effect of TaC addition on microstructure and microhardness of additively manufactured tungsten. Journal of Alloys and Compounds, 2022, 897, 162978. | 2.8 | 2 |
| 2763 | Analysis of Temperature Gradient Zone Melting and the Thermal Migration of Liquid Particles Through a Solid. SSRN Electronic Journal, 0, , . | 0.4 | 0 |
| 2764 | Effect of Zr on the as-cast microstructure and mechanical properties of lightweight Ti2VNbMoZrx refractory high-entropy alloys. International Journal of Refractory Metals and Hard Materials, 2022, 103, 105762. | 1.7 | 32 |
| 2765 | A phase-field study of the pattern selection between dendrite and seaweed during directional solidification. Computational Materials Science, 2022, 203, 111171. | 1.4 | 4 |
| 2766 | On the theory of the stability of lamellar eutectics. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1970, 1, 318-320. | 1.0 | 12 |

| | C | ITATION REPORT | |
|------|--|----------------|-----------|
| # | Article | IF | CITATIONS |
| 2767 | Pore-Scale Modeling of Mineral Growth and Nucleation in Reactive Flow. Frontiers in Water, 2022, 3, | . 1.0 | 4 |
| 2768 | Geometrical dynamics of edge-driven accretive surface growth. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, . | 1.0 | 0 |
| 2769 | Crystal growth mechanism of directionally solidified Fe–Al–Ta eutectic composites at higher solidification rates. Vacuum, 2022, 199, 110922. | 1.6 | 1 |
| 2770 | Cryofouling avoidance in the Antarctic scallop Adamussium colbecki. Communications Biology, 2022 5, 83. | ., 2.0 | 6 |
| 2771 | Nonequilibrium Self-Organization of Lipids into Hierarchically Ordered and Compositionally Graded Cylindrical Smectics. Langmuir, 2022, 38, 1045-1056. | 1.6 | 5 |
| 2772 | Solid/liquid interface evolution including seaweed morphology during directional solidification of Co-Sn alloys. Materials Science and Technology, 2022, 38, 191-197. | 0.8 | Ο |
| 2773 | Evaluating grain size, dendritic scale, and tensile properties of a NbB-inoculated 6201 alloy using solidification rate. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 835, 142680. | 2.6 | 7 |
| 2774 | Mushy-layer convection. Physics Today, 2022, 75, 34-39. | 0.3 | 1 |
| 2775 | Simulation of cellular-dendritic solidification structures of binary alloys in three-dimensional growth using a multiparticle diffusion-limited aggregation model. International Journal of Materials Research, 2022, 95, 1133-1141. | 0.1 | 0 |
| 2776 | Oscillatory bifurcation patterns initiated by seeded surface solidification of liquid metals. , 2022, 1, 158-169. | | 15 |
| 2777 | On the solid-state dendritic growth of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"> <mml:mrow> <mml:msub> <r mathvariant="normal">M <mml:mn>7</mml:mn> </r </mml:msub> <mml:msub> <mml:mi mathvariant="normal"> <mml:mn>3</mml:mn> </mml:mi </mml:msub> </mml:mrow> combide at interfaces in an outpristic output Sciente Materialia, 2022, 212, 114585</mml:math | nml:mi 2.6 | 5 |
| 2778 | Acceleration Mechanism of Ti ₂ O ₃ on Tin Formation Î'-Ferrite Nucleation of Ferritic Stainless Steel. SSRN Electronic Journal, 0, , . | and 0.4 | Ο |
| 2779 | Materials prepared by Freezing-Induced Self-Assembly of Dispersed Solutes: A Review. Materials Advances, 2022, 3, 3041-3054. | 2.6 | 5 |
| 2780 | Dynamics at crystal/melt interface during solidification of multicrystalline silicon. High Temperature Materials and Processes, 2022, 41, 31-47. | 0.6 | 7 |
| 2781 | A Two-Dimensional Phase-Field Investigation on Unidirectionally Solidified Tip-Splitting Microstructures. Metals, 2022, 12, 376. | 1.0 | 2 |
| 2782 | A Novel Supermesh Method for Computing Solutions to the Multi-material Stefan Problem with Complex Deforming Interfaces and Microstructure. Journal of Scientific Computing, 2022, 91, 1. | 1.1 | 2 |
| 2783 | Interactive effects of interfacial energy anisotropy and solute transport on solidification patterns of Al-Cu alloys. Acta Materialia, 2022, 231, 117859. | 3.8 | 21 |
| 2784 | Cellular Sensing Governs the Stability of Chemotactic Fronts. Physical Review Letters, 2022, 128, 148101. | 2.9 | 13 |

| # | Article | IF | Citations |
|------|---|-----|-----------|
| 2785 | The Microstructure Formation in Slag Solidification at Continuous Casting Mold. Metals, 2022, 12, 617. | 1.0 | 4 |
| 2786 | Analysis of temperature gradient zone melting and the thermal migration of liquid particles through a solid. Acta Materialia, 2022, 228, 117780. | 3.8 | 2 |
| 2787 | Facet formation during the solidification of pure antimony. Journal of Crystal Growth, 2022, 586, 126633. | 0.7 | 0 |
| 2788 | Study of in situ formed quasicrystals in Al-Mn based alloys fabricated by SLM. Journal of Alloys and Compounds, 2022, 909, 164847. | 2.8 | 7 |
| 2789 | Efficient grain refinement of Al alloys induced by in-situ nanoparticles. Journal of Materials Science and Technology, 2022, 124, 14-25. | 5.6 | 22 |
| 2790 | Effect of the Processes of Microsegregation on the Formation of Periodic Doping Superstructures in Binary Alloys. Physics of the Solid State, 2021, 63, 1626-1632. | 0.2 | 0 |
| 2791 | A Model for the Anomalous Velocity-Undercooling Behaviour of Levitated Al-Ni Alloys On-board the International Space Station. Microgravity Science and Technology, 2021, 33, 1. | 0.7 | 2 |
| 2792 | Microstructure and Mechanical Properties of Ultrafine Quaternary Al-Cu-Si-Mg Eutectic Alloy. Metals, 2022, 12, 7. | 1.0 | 4 |
| 2796 | The Influence of Annealing Temperature on Microstructure and Magnetic Properties of Fe 74 Co 3 Si 8 B 10 Al 1 Nb 4 Amorphous Alloy Ribbons. Atlas Journal of Materials Science, 2015, 2, 44-47. | 0.2 | 0 |
| 2797 | Solidification. , 0, , 334-360. | | 0 |
| 2798 | Original Article Patterned ground formation and convection in porous media with a phase change. Continuum Mechanics and Thermodynamics, 1996, 8, 189-199. | 1.4 | 0 |
| 2799 | Solidification of Binary Alloys with Compositional Stresses—A Phase-Field Approach. , 0, , 297-309. | | 0 |
| 2800 | The effects of reaction kinetics upon the instabilities in cathodic electrodeposition. Current Opinion in Colloid and Interface Science, 2022, 60, 101591. | 3.4 | 4 |
| 2801 | Strongly out-of-equilibrium growth morphologies in fast solidifying eutectics. Physical Review Materials, 2022, 6, . | 0.9 | 1 |
| 2802 | Laser remelting of AlSi10Mg(-Ni) alloy surfaces: influence of Ni content and cooling rate on the microstructure. International Journal of Advanced Manufacturing Technology, 2022, 120, 8117-8132. | 1.5 | 3 |
| 2803 | Spherulites: How Do They Emerge at an Onset of Nonequilibrium Kinetic-Thermodynamic and Structural Singularity Addressing Conditions?. Entropy, 2022, 24, 663. | 1.1 | 3 |
| 2804 | Constitutional supercooling and corresponding microstructure transition triggered by high magnetic field gradient during directional solidification of Al-Fe eutectic alloy. Materials Characterization, 2022, 188, 111920. | 1.9 | 8 |
| 2805 | Chemomechanics: Friend or foe of the "AND problem―of solid-state batteries?. Current Opinion in Solid State and Materials Science, 2022, 26, 101002. | 5.6 | 5 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2806 | Acceleration mechanism of Ti2O3 on TiN formation and δferrite nucleation of ferritic stainless steel. Journal of Alloys and Compounds, 2022, 912, 165221. | 2.8 | 6 |
| 2807 | Fundamentals of solidification phenomena. Keikinzoku/Journal of Japan Institute of Light Metals, 1996, 46, 156-161. | 0.1 | 2 |
| 2808 | Convective effects on columnar dendritic solidification – A multiscale dendritic needle network study. Acta Materialia, 2022, 234, 118035. | 3.8 | 11 |
| 2809 | Thermodynamic coupling in the computation of dendrite growth kinetics for multicomponent alloys. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2022, 77, 102429. | 0.7 | 8 |
| 2810 | Effect of Vertical High Magnetic Field on the Morphology of Solid-Liquid Interface during the Directional Solidification of Zn-2wt.%Bi Immiscible Alloy. Metals, 2022, 12, 875. | 1.0 | 3 |
| 2811 | Microstructural evolution of Fe-based amorphous alloy coatings via ultrasonic vibration-assisted laser cladding. Materials Letters, 2022, 322, 132520. | 1.3 | 14 |
| 2812 | Gravity enables selfâ€assembly. Natural Sciences, 2022, 2, . | 1.0 | 1 |
| 2813 | Macro-Micro-Coupling Simulation and Space Experiment Study on Zone Melting Process of Bismuth Telluride-Based Crystal Materials. Metals, 2022, 12, 886. | 1.0 | 1 |
| 2814 | Microstructure and Crystallization Evolution of Directionally Solidified Al–Cu–Si Alloys With the Assistance of a Static Magnetic Field. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2022, 53, 3166-3178. | 1.1 | 6 |
| 2815 | Effect of electropulsing on the solidification of mould flux. Journal of Materials Research and Technology, 2022, 19, 2146-2155. | 2.6 | 7 |
| 2816 | Fingering instability in wildfire fronts. Journal of Fluid Mechanics, 2022, 943, . | 1.4 | 2 |
| 2817 | A multi-phase field model for mesoscopic interface dynamics with large bulk driving forces. Computational Materials Science, 2022, 212, 111570. | 1.4 | 2 |
| 2818 | Time-scale investigation with the modified phase field crystal method. Modelling and Simulation in Materials Science and Engineering, 2022, 30, 064001. | 0.8 | 7 |
| 2819 | Solidification of ternary melts with a two-phase layer. Journal of Physics Condensed Matter, 2022, 34, 383002. | 0.7 | 5 |
| 2820 | Ice Shell Structure and Composition of Ocean Worlds: Insights from Accreted Ice on Earth. Astrobiology, 2022, 22, 937-961. | 1.5 | 15 |
| 2821 | Solute concentration effects on microstructure and the compressive strength of iceâ€ŧemplated sintered lithium titanate. Journal of the American Ceramic Society, 0, , . | 1.9 | 0 |
| 2822 | Seaweed and Dendritic Growth in Unsaturated Fatty Acid Monolayers. Membranes, 2022, 12, 698. | 1.4 | 3 |
| 2823 | Difference in growth rates at {1 1 0} and {1 1 1} crystal/melt interfaces of silicon. Journal of Crystal Growth, 2022, 593, 126784. | 0.7 | 2 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2824 | Generalized stability criterion for controlling solidification segregation upon twin-roll casting. Journal of Materials Science and Technology, 2023, 134, 163-177. | 5.6 | 8 |
| 2825 | Crystal growth History: Theory and melt growth processes. Journal of Crystal Growth, 2022, 594, 126800. | 0.7 | 8 |
| 2832 | Digital Twin Science of Metal Powder Bed Fusion Additive Manufacturing: A Selective Review of Simulations for Integrated Computational Materials Engineering and Science. ISIJ International, 2022, 62, 2183-2196. | 0.6 | 10 |
| 2833 | Patterns during Evaporative Crystallization of a Saline Droplet. Langmuir, 2022, 38, 10265-10273. | 1.6 | 1 |
| 2834 | Theory and <i>In Situ</i> Diagnosis of Growth Kinetics of Dendritic Crystals in Alloy Solidification. Crystal Growth and Design, 0, , . | 1.4 | 0 |
| 2835 | Sharp phase-field modeling of isotropic solidification with a super efficient spatial resolution. Engineering With Computers, 2023, 39, 1699-1709. | 3.5 | 6 |
| 2836 | Pseudo-4D view of the growth and form of locked eutectic colonies. Acta Materialia, 2022, 240, 118335. | 3.8 | 2 |
| 2837 | Macrosteps dynamics and the growth of crystals and epitaxial layers. Progress in Crystal Growth and Characterization of Materials, 2022, 68, 100581. | 1.8 | 1 |
| 2838 | Influence of growth velocity on fragmentation during directional solidification of Al – 14 wt.% Sn alloy studied by in-situ synchrotron X-radiography. Acta Materialia, 2022, 241, 118370. | 3.8 | 9 |
| 2839 | Impact of Supercooled Drops onto Cold Surfaces. Fluid Mechanics and Its Applications, 2022, , 311-332. | 0.1 | 0 |
| 2840 | Antimicrobial nano-assemblies of tryptocidine C, a tryptophan-rich cyclic decapeptide, from ethanolic solutions. Biochimie, 2022, , . | 1.3 | 0 |
| 2841 | Linearized Tracking of Dendritic Evolution in Rechargeable Batteries. Journal of the Electrochemical Society, 2022, 169, 112507. | 1.3 | 1 |
| 2842 | Frictionless Motion of Diffuse Interfaces by Sharp Phase-Field Modeling. Crystals, 2022, 12, 1496. | 1.0 | 2 |
| 2843 | The role of incoming flow on crystallization of undercooled liquids with a two-phase layer. Scientific Reports, 2022, 12, . | 1.6 | 14 |
| 2844 | Grain growth competition during melt pool solidification — Comparing phase-field and cellular automaton models. Computational Materials Science, 2023, 216, 111882. | 1.4 | 9 |
| 2845 | Investigation of Facetted Growth in Heavily Doped Silicon Crystals Grown in Mirror Furnaces. Crystals, 2022, 12, 1575. | 1.0 | 1 |
| 2846 | Early asymmetric growth of planetary stagnant lids. Journal of Fluid Mechanics, 2022, 952, . | 1.4 | 2 |
| 2847 | Branched growth of ZSM-12 zeolite on seeds. Microporous and Mesoporous Materials, 2023, 348, 112364. | 2.2 | 2 |

| # | Article | IF | CITATIONS |
|------|---|------|-----------|
| 2848 | A hybrid level-set / embedded boundary method applied to solidification-melt problems. Journal of Computational Physics, 2023, 474, 111829. | 1.9 | 2 |
| 2849 | Pattern formation and front stability for a moving-boundary model of biological invasion and recession. Physica D: Nonlinear Phenomena, 2023, 444, 133593. | 1.3 | 4 |
| 2850 | On the Stability of Surface Growth: The Effect of a Compliant Surrounding Medium. Journal of Elasticity, 2023, 154, 467-491. | 0.9 | 0 |
| 2851 | The Origin of Lattice Rotation during Dendritic Crystallization of Clinopyroxene. Journal of Petrology, 2023, 64, . | 1.1 | 1 |
| 2852 | The effect of confinement on thermal convection and longitudinal macrosegregation in directionally solidified dilute succinonitrile–camphor alloy. Comptes Rendus - Mecanique, 2023, 351, 249-262. | 0.3 | 0 |
| 2853 | Microstructural Pattern Formation during Far-from-Equilibrium Alloy Solidification. Physical Review Letters, 2023, 130, . | 2.9 | 15 |
| 2854 | Adjoint-based optimization of two-dimensional Stefan problems. Journal of Computational Physics, 2023, 475, 111875. | 1.9 | 0 |
| 2855 | Effect of casting temperature on halo in the solidification microstructure of direct-chill casting Al-16.5Si-4.5Cu-0.6Mg-0.1Zr alloys. Materials Letters, 2022, , 133779. | 1.3 | 1 |
| 2856 | Preparation of Oriented ZnO Rod Arrays Using Hexagonal Plate-Like Particles as a Seed Layer. Langmuir, 2023, 39, 487-494. | 1.6 | 1 |
| 2857 | A level-set immersed boundary method for reactive transport in complex topologies with moving interfaces. Journal of Computational Physics, 2023, 478, 111958. | 1.9 | 2 |
| 2858 | Understanding Ni-modified AlSi10Mg alloys from slow to rapid solidification. IOP Conference Series: Materials Science and Engineering, 2023, 1274, 012016. | 0.3 | 0 |
| 2859 | A Review of Solid Electrolyte Interphase (SEI) and Dendrite Formation in Lithium Batteries. Electrochemical Energy Reviews, 2023, 6, . | 13.1 | 30 |
| 2860 | Morphological stability of solid-liquid interfaces under additive manufacturing conditions. Acta Materialia, 2023, 250, 118858. | 3.8 | 10 |
| 2861 | Thermal stability of dislocation structure and its effect on creep property in austenitic 316L stainless steel manufactured by directed energy deposition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2023, 873, 144981. | 2.6 | 4 |
| 2862 | A quantitative variational phase field framework. Acta Materialia, 2023, 251, 118897. | 3.8 | 2 |
| 2863 | X-ray micro-tomographic imaging and modelling of saline ice properties in concrete frost salt scaling experiments. Cold Regions Science and Technology, 2023, 208, 103780. | 1.6 | 2 |
| 2864 | Growth and Form of Rippled Icicles. Physical Review Applied, 2023, 19, . | 1.5 | 1 |
| 2866 | Dual-phase synergistic deformation characteristics and strengthening mechanism of AlCoCrFeNi2.1 eutectic high entropy alloy fabricated by laser powder bed fusion. Journal of Materials Science and Technology, 2023, 150, 75-85. | 5.6 | 14 |

| # | Article | IF | CITATIONS |
|------|--|-----|-----------|
| 2867 | In Situ Observation of Solidification and Crystallization of Low-Alloy Steels: A Review. Metals, 2023, 13, 517. | 1.0 | 3 |
| 2868 | Influence of Heat Input on Solidification Cracking in Additively Manufactured CM247LC Ni-based Superalloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2023, 54, 2394-2409. | 1.1 | 2 |
| 2869 | Anomalous eutectic formation in undercooled Niâ^'P eutectic alloy. Transactions of Nonferrous Metals Society of China, 2023, 33, 507-517. | 1.7 | 3 |
| 2870 | Crystal growth, bulk: Theory and models. , 2024, , 231-247. | | 0 |
| 2871 | The criterion of planar instability in alloy solidification under varying conditions: A viewpoint from free energy. Journal of Applied Physics, 2023, 133, . | 1.1 | 1 |
| 2872 | The Mechanism of Dendrite Formation in a Solid-State Transformation of High Aluminum Fe-Al Alloys. Materials, 2023, 16, 2691. | 1.3 | 2 |
| 2873 | Of fiery sparks and glittering spots: melting-resolidification and spherical particle formation in abrasion. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2023, 479, . | 1.0 | 1 |
| 2874 | Directional crystallization with a mushy region. Part 1: linear analysis of dynamic stability. European Physical Journal: Special Topics, 2023, 232, 1119-1127. | 1.2 | 4 |
| 2875 | Synthesis of Large-Area GeS Thin Films with the Assistance of Pre-deposited Amorphous Nanostructured GeS Films: Implications for Electronic and Optoelectronic Applications. ACS Applied Nano Materials, 2023, 6, 6920-6928. | 2.4 | 2 |
| 2876 | Morphological stability analysis of a planar crystallization front with convection. European Physical Journal: Special Topics, 2023, 232, 1109-1117. | 1.2 | 4 |
| 2877 | Alumina Nucleation, Growth Kinetics, and Morphology: A Review. Steel Research International, 2023, 94, . | 1.0 | 1 |
| 2878 | Microstructural evolution and precipitation behavior of Al–7Si–3Cu alloy prepared under 5ÂGPa. Journal of Materials Science and Technology, 2023, 159, 138-150. | 5.6 | 1 |
| 2886 | Thermal Effects in Kinetics of Phase Transformations. Lecture Notes in Physics, 2023, , 101-135. | 0.3 | 0 |