

Menghuai Wu

List of Publications by Year in Descending Order

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

183
papers

2,720
citations

30
h-index

45
g-index

194
ext. papers

3,112
ext. citations

2.2
avg, IF

5.52
L-index

#	Paper	IF	Citations
183	Hydrodynamically driven facet kinetics in crystal growth. <i>Journal of Crystal Growth</i> , 2022 , 584, 126557	1.6	
182	Modeling of the as-cast structure and macrosegregation in the continuous casting of a steel billet: Effect of M-EMS. <i>Journal of Materials Processing Technology</i> , 2022 , 301, 117434	5.3	2
181	Norton-Hoff model for deformation of growing solid shell of thin slab casting in funnel-shape mold. <i>Journal of Iron and Steel Research International</i> , 2022 , 29, 88-102	1.2	0
180	Tornados and cyclones driven by Magneto-hydrodynamic forces. <i>European Journal of Mechanics, B/Fluids</i> , 2022 , 94, 90-105	2.4	0
179	Important Key Process Simulations in the Field of Steel Metallurgy. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2022 , 167, 2-9	0.6	
178	Validation of a capillary-driven fragmentation model during mixed columnar-equiaxed solidification with melt convection and grain transport. <i>Materialia</i> , 2022 , 101462	3.2	0
177	Hydrodynamically enhanced electrochemical mass transfer on the surface of an electrically conductive droplet. <i>Heat and Mass Transfer</i> , 2021 , 57, 1697-1705	2.2	1
176	Directional Solidification of AlSi7Fe1 Alloy Under Forced Flow Conditions: Effect of Intermetallic Phase Precipitation and Dendrite Coarsening. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021 , 52, 3007	2.3	2
175	Generation of Reverse Meniscus Flow by Applying An Electromagnetic Brake. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2021 , 52, 3193-3207	2.5	10
174	Physical and numerical simulation of mixed columnar-equiaxed solidification during cold strip feeding in continuous casting. <i>International Journal of Heat and Mass Transfer</i> , 2021 , 173, 121237	4.9	9
173	Flow-solidification interaction: A numerical study on solidification of NH ₄ Cl 70wt.%H ₂ O solution in a water-cooled mould with a large sample thickness. <i>International Journal of Heat and Mass Transfer</i> , 2021 , 164, 120566	4.9	3
172	Geometrical effect on macrosegregation formation during unidirectional solidification of AlBi alloy. <i>Journal of Materials Processing Technology</i> , 2021 , 288, 116913	5.3	2
171	A Numerical Study on the Influence of an Axial Magnetic Field (AMF) on Vacuum Arc Remelting (VAR) Process. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2021 , 52, 3354-3362	2.5	2
170	On Modelling Parasitic Solidification Due to Heat Loss at Submerged Entry Nozzle Region of Continuous Casting Mold. <i>Metals</i> , 2021 , 11, 1375	2.3	3
169	Bridging Capillary-Driven Fragmentation and Grain Transport with Mixed Columnar-Equiaxed Solidification. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021 , 52, 4609-4622	2.3	3
168	Modelling melting and grain destruction phenomena during globular equiaxed solidification. <i>Applied Mathematical Modelling</i> , 2021 , 97, 821-838	4.5	3
167	Toward a Simplified Arc Impingement Model in a Direct-Current Electric Arc Furnace. <i>Metals</i> , 2021 , 11, 1482	2.3	0

166	Investigation of effect of electrode polarity on electrochemistry and magnetohydrodynamics using tertiary current distribution in electroslag remelting process. <i>Journal of Iron and Steel Research International</i> , 2021 , 28, 1551-1561	1.2	0
165	Reverse flows and flattening of a submerged jet under the action of a transverse magnetic field. <i>Physical Review Fluids</i> , 2021 , 6,	2.8	2
164	A 2D Multiphase Model of Drop Behavior during Electroslag Remelting. <i>Metals</i> , 2020 , 10, 490	2.3	3
163	Impact of hydrodynamics on growth and morphology of faceted crystals. <i>Journal of Crystal Growth</i> , 2020 , 541, 125667	1.6	4
162	Influence of crystal fragmentation on the formation of microstructure and macrosegregation during directional solidification under forced convection condition. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020 , 861, 012048	0.4	
161	Modelling viscoplastic behavior of solidifying shell under applied electromagnetic braking during continuous casting. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020 , 861, 012015	0.4	5
160	Two-phase viscoplastic model for the simulation of twin roll casting. <i>Journal of Materials Processing Technology</i> , 2020 , 286, 116814	5.3	5
159	A Numerical Investigation on the Electrochemical Behavior of CaO and Al ₂ O ₃ in the ESR Slags. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2020 , 51, 871-879	2.5	6
158	A volume of fluid (VOF) method to model shape change during electrodeposition. <i>Electrochemistry Communications</i> , 2020 , 112, 106675	5.1	2
157	A Parametric Study of the Vacuum Arc Remelting (VAR) Process: Effects of Arc Radius, Side-Arcing, and Gas Cooling. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2020 , 51, 222-235	2.5	7
156	Numerical study of the role of mush permeability in the solidifying mushy zone under forced convection. <i>Materials Today Communications</i> , 2020 , 22, 100842	2.5	4
155	Modelling of shear bands during solidification. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020 , 861, 012066	0.4	
154	Role of Solidification in Submerged Entry Nozzle Clogging During Continuous Casting of Steel. <i>Steel Research International</i> , 2020 , 91, 2000230	1.6	4
153	Modeling mixed columnar-equiaxed solidification of Sn-10wt%Pb alloy under forced convection driven by travelling magnetic stirring. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020 , 861, 012024	0.4	
152	Numerical investigation of an in-situ observed flow regimes during solidification of an NH ₄ Cl 70 wt%H ₂ O solution. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020 , 861, 012041	0.4	
151	Impact of crystal sedimentation and viscoplastic semi-solid dynamics on macrosegregation. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020 , 861, 012042	0.4	2
150	Electric Current Distribution During Electromagnetic Braking in Continuous Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2020 , 51, 2811-2828	2.5	16
149	A Comprehensive Analysis of Macrosegregation Formation During Twin-Roll Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2019 , 50, 1334-1350	2.5	18

148	A GPU solver for symmetric positive-definite matrices vs. traditional codes. <i>Computers and Mathematics With Applications</i> , 2019 , 78, 2933-2943	2.7	3
147	Calculation Accuracy and Efficiency of a Transient Model for Submerged Entry Nozzle Clogging. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2019 , 50, 1428-1443	2.5	9
146	Volume-Averaged Modeling of Multiphase Flow Phenomena during Alloy Solidification. <i>Metals</i> , 2019 , 9, 229	2.3	16
145	Physical and Numerical Modeling of Exposed Slag Eye in Continuous Casting Mold using Euler-Euler Approach. <i>Steel Research International</i> , 2019 , 90, 1800117	1.6	17
144	A Dynamic Mesh Method to Model Shape Change during Electrodeposition. <i>Journal of the Electrochemical Society</i> , 2019 , 166, D521-D529	3.9	3
143	On the Modelling of Macrosegregation during Twin-Roll Casting. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 529, 012041	0.4	
142	On modelling viscoplastic behavior of the solidifying shell in the funnel-type continuous casting mold. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 529, 012081	0.4	6
141	An Experimental Benchmark of Non-metallic Inclusion Distribution Inside a Heavy Continuous-Casting Slab. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019 , 50, 1370-1379	2.3	8
140	Scale-Adaptive Simulation of Transient Two-Phase Flow in Continuous-Casting Mold. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2019 , 50, 543-554	2.5	12
139	Modeling electrochemical transport of ions in the molten CaF ₂ BeO slag operating under a DC voltage. <i>Applied Mathematics and Computation</i> , 2019 , 357, 357-373	2.7	6
138	Use of a mixed columnar-equiaxed solidification model to analyse the formation of as-cast structure and macrosegregation in a Sn-10 wt% Pb benchmark experiment. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 122, 939-953	4.9	18
137	A transient model for nozzle clogging. <i>Powder Technology</i> , 2018 , 329, 181-198	5.2	23
136	On the Coupling Mechanism of Equiaxed Crystal Generation with the Liquid Flow Driven by Natural Convection During Solidification. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 1708-1724	2.3	8
135	Simulation of Non-metallic Inclusion Deposition and Clogging of Nozzle. <i>Minerals, Metals and Materials Series</i> , 2018 , 149-158	0.3	2
134	Confrontation of the Ohmic approach with the ionic transport approach for modeling the electrical behavior of an electrolyte. <i>Ionics</i> , 2018 , 24, 2157-2165	2.7	9
133	Heat Transfer Coefficient at Cast-Mold Interface During Centrifugal Casting: Calculation of Air Gap. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2018 , 49, 1421-1433	2.5	11
132	A (non-)hydrostatic free-surface numerical model for two-layer flows. <i>Applied Mathematics and Computation</i> , 2018 , 319, 301-317	2.7	1
131	Simulation of As-Cast Steel Ingots. <i>Steel Research International</i> , 2018 , 89, 1700037	1.6	6

130	Premature melt solidification during mold filling and its influence on the as-cast structure. <i>Frontiers of Mechanical Engineering</i> , 2018 , 13, 53-65	3.3	2
129	Incorporation of fragmentation into a volume average solidification model. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2018 , 26, 015004	2	12
128	Review of Ammonium Chloride Water Solution Properties. <i>Journal of Chemical & Engineering Data</i> , 2018 , 63, 3170-3183	2.8	14
127	A multiphysics model of the electroslag rapid remelting (ESRR) process. <i>Applied Thermal Engineering</i> , 2018 , 130, 1062-1069	5.8	10
126	Review on Modeling and Simulation of Electroslag Remelting. <i>Steel Research International</i> , 2018 , 89, 1700100	1.6	41
125	Macrosegregation Formation in an AlSi Casting Sample with Cross-sectional Change During Directional Solidification. <i>Transactions of the Indian Institute of Metals</i> , 2018 , 71, 2639-2643	1.2	3
124	Effect of an Electrically-Conducting Wall on Transient Magnetohydrodynamic Flow in a Continuous-Casting Mold with an Electromagnetic Brake. <i>Metals</i> , 2018 , 8, 609	2.3	19
123	Modeling of the Twin-Roll Casting Process: Transition from Casting to Rolling. <i>Transactions of the Indian Institute of Metals</i> , 2018 , 71, 2645-2649	1.2	7
122	Contribution of an Electro-Vortex Flow to Primary, Secondary, and Tertiary Electric Current Distribution in an Electrolyte. <i>Journal of the Electrochemical Society</i> , 2018 , 165, E604-E615	3.9	9
121	Discussion on Modeling Capability for Macrosegregation. <i>High Temperature Materials and Processes</i> , 2017 , 36, 531-539	0.9	1
120	Toward Modeling of Electrochemical Reactions during Electroslag Remelting (ESR) Process. <i>Steel Research International</i> , 2017 , 88, 1700011	1.6	13
119	Massive Formation of Equiaxed Crystals by Avalanches of Mushy Zone Segments. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017 , 48, 2927-2931	2.3	6
118	A four phase model for the macrosegregation and shrinkage cavity during solidification of steel ingot. <i>Applied Mathematical Modelling</i> , 2017 , 41, 102-120	4.5	40
117	A Water Experiment Benchmark to Evaluate Numerical Models for the Motion of Particles in Continuous Casting Tundish. <i>Steel Research International</i> , 2017 , 88, 1600276	1.6	8
116	Role of fragmentation in as-cast structure: numerical study and experimental validation. <i>China Foundry</i> , 2017 , 14, 321-326	0.8	1
115	Assessment of Different Turbulence Models for the Motion of Non-metallic Inclusion in Induction Crucible Furnace. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016 , 143, 012026	0.4	4
114	An attempt to model electrode change during the ESR process. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016 , 143, 012006	0.4	1
113	Transient melting of an ESR electrode. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016 , 143, 012003	0.4	3

112	Numerical analysis of macrosegregation in vertically solidified Pb-Sn test castings [Part I: Columnar solidification. <i>Computational Materials Science</i> , 2016 , 124, 444-455	3.2	10
111	Numerical analysis of macrosegregation in vertically solidified Pb-Sn test castings [Part II: Equiaxed solidification. <i>Computational Materials Science</i> , 2016 , 124, 456-470	3.2	11
110	On The Importance of Modeling 3D Shrinkage Cavities for the Prediction of Macrosegregation in Steel Ingots 2016 , 1-10		
109	Modelling Al-4wt.%Cu as-cast structure using equiaxed morphological parameters deduced from in-situ synchrotron X-ray radiography. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016 , 117, 012010	0.4	2
108	Free-surface flow in horizontally rotating cylinder: experiment and simulation. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016 , 143, 012036	0.4	1
107	Numerical investigation of solidification and CET of the transparent alloy NPG-37.5 wt.% DC in microgravity [RACE] experiment. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016 , 117, 012011	0.4	1
106	On the Importance of Modeling 3D Shrinkage Cavities for the Prediction of Macrosegregation in Steel Ingots. <i>Minerals, Metals and Materials Series</i> , 2016 , 3-10	0.3	
105	Simulation of the Electric Signal During the Formation and Departure of Droplets in the Electroslag Remelting Process. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016 , 47, 1427-1434	2.5	41
104	A numerical study on electrochemical transport of ions in calcium fluoride slag. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016 , 143, 012008	0.4	1
103	Influence of forced convection on solidification and remelting in the developing mushy zone. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016 , 117, 012045	0.4	8
102	Simulation in Metallurgical Processing: Recent Developments and Future Perspectives. <i>Jom</i> , 2016 , 68, 2191-2197	2.1	9
101	On Validity of Axisymmetric Assumption for Modeling an Industrial Scale Electroslag Remelting Process. <i>Advanced Engineering Materials</i> , 2016 , 18, 224-230	3.5	19
100	Simulation of macrosegregation in a large vertical continuous casting of steel. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016 , 143, 012032	0.4	2
99	An approximate Riemann solver for shallow water equations and heat advection in horizontal centrifugal casting. <i>Applied Mathematics and Computation</i> , 2015 , 267, 179-194	2.7	2
98	Experimental and numerical analysis of free surface deformation in an electrically driven flow. <i>Experimental Thermal and Fluid Science</i> , 2015 , 62, 192-201	3	18
97	On Macrosegregation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015 , 46, 4854-4867	2.3	50
96	Numerical Study about the Influence of Small Casting Speed Variations on the Metallurgical Length in Continuous Casting of Steel Slabs. <i>Steel Research International</i> , 2015 , 86, 184-188	1.6	2
95	Recent Developments and Future Perspectives in Simulation of Metallurgical Processes. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2015 , 160, 507-512	0.6	1

94	Simulation of Crystal Sedimentation and Viscoplastic Behavior of Sedimented Equiaxed Mushy Zones. <i>Transactions of the Indian Institute of Metals</i> , 2015 , 68, 1087-1094	1.2	10
93	Analysis of macrosegregation formation and columnar-to-equiaxed transition during solidification of Al-4wt.%Cu ingot using a 5-phase model. <i>Journal of Crystal Growth</i> , 2015 , 417, 65-74	1.6	38
92	Benchmark experiments and numerical modelling of the columnar-equiaxed dendritic growth in the transparent alloy Neopentylglycol-(d)Camphor. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 84, 012086	0.4	2
91	A scale adaptive dendritic envelope model of solidification at mesoscopic scales. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 84, 012032	0.4	3
90	Using four-phase Eulerian volume averaging approach to model macrosegregation and shrinkage cavity. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 84, 012006	0.4	6
89	A Dynamic Mesh-Based Approach to Model Melting and Shape of an ESR Electrode. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2015 , 46, 2049-2061	2.5	39
88	Numerical simulation of multi-mini-pot pouring process of a 13-ton steel ingot. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 84, 012009	0.4	
87	Modelling of macrosegregation in direct chill casting considering columnar-to-equiaxed transition using 3-phase Eulerian approach. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 84, 012061	0.4	
86	Modified Shallow Water Equations With Application for Horizontal Centrifugal Casting of Rolls. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2015 , 137,	2.1	2
85	Two-phase modelling of equiaxed crystal sedimentation and thermomechanic stress development in the sedimented packed bed. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 84, 012102	0.4	6
84	Advanced Process Simulation of Solidification and Melting. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2014 , 159, 30-40	0.6	2
83	Numerical Investigation of Shell Formation in Thin Slab Casting of Funnel-Type Mold. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014 , 45, 1024-1037	2.5	25
82	Modeling the Effects of Strand Surface Bulging and Mechanical Softreduction on the Macrosegregation Formation in Steel Continuous Casting. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 1415-1434	2.3	38
81	3D Lattice Boltzmann flow simulations through dendritic mushy zones. <i>Engineering Analysis With Boundary Elements</i> , 2014 , 45, 29-35	2.6	13
80	Observation of flow regimes and transitions during a columnar solidification experiment. <i>Fluid Dynamics Research</i> , 2014 , 46, 041424	1.2	11
79	Modeling diffusion-governed solidification of ternary alloys - Part 2: Macroscopic transport phenomena and macrosegregation. <i>Computational Materials Science</i> , 2014 , 92, 267-285	3.2	25
78	Simulation of macrosegregation in a 2.45-ton steel ingot using a three-phase mixed columnar-equiaxed model. <i>International Journal of Heat and Mass Transfer</i> , 2014 , 72, 668-679	4.9	99
77	Simulation of Horizontal Centrifugal Casting: Mold Filling and Solidification. <i>ISIJ International</i> , 2014 , 54, 266-274	1.7	13

76	On Melting of Electrodes during Electro-Slag Remelting. <i>ISIJ International</i> , 2014 , 54, 1621-1628	1.7	32
75	Modeling of Multiscale and Multiphase Phenomena in Materials Processing. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014 , 45, 36-43	2.5	45
74	Process Simulation for the Metallurgical Industry: New Insights into Invisible Phenomena. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2013 , 158, 184-188	0.6	2
73	Application of Microprobe Analysis to the Reconstruction and Characterization of Dendritic Structures. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 607-616	2.3	6
72	Simultaneous Observation of Melt Flow and Motion of Equiaxed Crystals During Solidification Using a Dual Phase Particle Image Velocimetry Technique. Part I: Stage Characterization of Melt Flow and Equiaxed Crystal Motion. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 650-660	2.3	11
71	Simultaneous Observation of Melt Flow and Motion of Equiaxed Crystals During Solidification Using a Dual Phase Particle Image Velocimetry Technique. Part II: Relative Velocities. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 661-668	2.3	8
70	Prediction of the As-Cast Structure of Al-4.0 Wt Pct Cu Ingots. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 2895-2903	2.3	22
69	Modeling diffusion-governed solidification of ternary alloys - Part 1: Coupling solidification kinetics with thermodynamics. <i>Computational Materials Science</i> , 2013 , 79, 830-840	3.2	37
68	Contribution of the Mould Current to the Ingot Surface Quality in the Electroslag Remelting Process 2013 , 95-99		1
67	Variation of the Resistance during the Electrode Movement in the Electroslag Remelting Process 2013 , 145-150		2
66	A Numerical Study on the Influence of the Frequency of the Applied AC Current on the Electroslag Remelting Process 2013 , 13-19		2
65	Using a Three-Phase Mixed Columnar-Equiaxed Solidification Model to Study Macroseggregation in Ingot Castings: Perspectives and Limitations 2013 , 171-180		
64	Contribution of the Mould Current to the Ingot Surface Quality in the Electroslag Remelting Process 2013 , 95-99		4
63	A Numerical Study on the Influence of the Frequency of the Applied AC Current on the Electroslag Remelting Process 2013 , 13-19		16
62	Variation of the Resistance During the Electrode Movement in the Electroslag Remelting Process 2013 , 145-150		4
61	Using a Three-Phase Mixed Columnar-Equiaxed Solidification Model to Study Macroseggregation in Ingot Castings: Perspectives and Limitations 2013 , 171-180		2
60	Using a Two-Phase Columnar Solidification Model to Study the Principle of Mechanical Soft Reduction in Slab Casting. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012 , 43, 945-964	2.3	49
59	Shallow water model for horizontal centrifugal casting. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 33, 012032	0.4	3

58	Exploration of the double-diffusive convection during dendritic solidification with a combined volume-averaging and cellular-automaton model. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 33, 012115	0.4	5
57	Simulation of channel segregation using a two-phase columnar solidification model [Part II: Mechanism and parameter study. <i>Computational Materials Science</i> , 2012 , 55, 419-429	3.2	38
56	Simulation of channel segregation using a two-phase columnar solidification model [Part I: Model description and verification. <i>Computational Materials Science</i> , 2012 , 55, 407-418	3.2	40
55	Modeling of Multiscale and Multiphase Phenomena in Material Processing 2012 , 147-161		
54	Vibrations Induced Flow in a Horizontal Centrifugal Casting 2012 , 227-234		1
53	A 3-phase model for mixed columnar-equiaxed solidification in DC casting of bronze. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012015	0.4	2
52	Modeling of the flow-solidification interaction in thin slab casting. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 33, 012014	0.4	6
51	Study of the channel segregation using a two-phase columnar solidification model. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012055	0.4	
50	3D simulation of interdendritic flow through a Al-18wt.%Cu structure captured with X-ray microtomography. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012016	0.4	2
49	2012 ,		1
48	Modelling macrosegregation in a 2.45 ton steel ingot. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 33, 012091	0.4	10
47	3D Simulation of the Melting during an Electro-Slag Remelting Process 2012 , 770-778		5
46	Evaluation of a mixed columnar-equiaxed solidification model with laboratory castings. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012018	0.4	5
45	Simulation of the as-cast structure of Al-4.0wt.%Cu ingots with a 5-phase mixed columnar-equiaxed solidification model. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 33, 012075	0.4	3
44	Simultaneous observation of melt flow and motion of equiaxed crystals during solidification using a dual phase Particle Image Velocimetry technique. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 33, 012042	0.4	2
43	Thermo-mechanical modeling of dendrite deformation in continuous casting of steel. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 33, 012058	0.4	2
42	Modelling mixed columnar-equiaxed solidification with melt convection and grain sedimentation □ Part I: Model description. <i>Computational Materials Science</i> , 2010 , 50, 32-42	3.2	91
41	Modelling mixed columnar-equiaxed solidification with melt convection and grain sedimentation □ Part II: Illustrative modelling results and parameter studies. <i>Computational Materials Science</i> , 2010 , 50, 43-58	3.2	59

40	On the Formation of Centreline Segregation in Continuous Slab Casting of Steel due to Bulging and/or Feeding. <i>Steel Research International</i> , 2010 , 81, 660-667	1.6	44
39	Importance of Melt Flow in Solidifying Mushy Zone~!2009-09-25~!2010-02-26~!2010-04-16~!. <i>Open Transport Phenomena Journal</i> , 2010 , 2, 16-23		13
38	Experimental and numerical investigations of NH4Cl solidification in a mould Part 2: numerical results. <i>International Journal of Cast Metals Research</i> , 2009 , 22, 172-174	1	3
37	An idea to treat the dendritic morphology in mixed columnar~equiaxed solidification. <i>International Journal of Cast Metals Research</i> , 2009 , 22, 323-326	1	7
36	Numerical investigation of grid influence on formation of macrosegregation. <i>International Journal of Cast Metals Research</i> , 2009 , 22, 175-178	1	4
35	Reformulation of time averaged Joule heating in presence of temperature fluctuations. <i>International Journal of Cast Metals Research</i> , 2009 , 22, 155-159	1	16
34	Validation of a Multiphase Model for the Macroscopic Segregation and Primary Structure of High-Grade Steel Ingots. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2009 , 40, 305-311	2.5	11
33	Modeling equiaxed solidification with melt convection and grain sedimentation~ Model description. <i>Acta Materialia</i> , 2009 , 57, 5621-5631	8.4	124
32	Modeling equiaxed solidification with melt convection and grain sedimentation~. Model verification. <i>Acta Materialia</i> , 2009 , 57, 5632-5644	8.4	67
31	Multiphase/multicomponent modeling of solidification processes: coupling solidification kinetics with thermodynamics. <i>International Journal of Materials Research</i> , 2008 , 99, 618-625	0.5	12
30	On the Importance of Electric Currents Flowing directly into the Mould during an ESR Process. <i>Steel Research International</i> , 2008 , 79, 632-636	1.6	40
29	Solidification and Particle Entrapment during Continuous Casting of Steel. <i>Steel Research International</i> , 2008 , 79, 599-607	1.6	35
28	On the Formation of Macroscopic Segregations in Steel Ingot Castings. <i>Steel Research International</i> , 2008 , 79, 637-644	1.6	27
27	Numerical Modelling of the Effect of Global Transport Phenomena on the Microstructure Formation. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2008 , 153, 253-256	0.6	
26	Using a Three-Phase Deterministic Model for the Columnar-to-Equiaxed Transition. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007 , 38, 1465-1475	2.3	97
25	A three-phase model for mixed columnar-equiaxed solidification. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2006 , 37, 1613-1631	2.3	147
24	Lehrstuhl f~ Simulation und Modellierung metallurgischer Prozesse. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2006 , 151, 294-297	0.6	
23	Modeling the columnar-to-equiaxed transition with a three-phase Eulerian approach. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 413-414, 109-114	5.3	54

22	Shape and stability of the slag/melt interface in a small dc ESR process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 413-414, 129-134	5.3	48
21	A way of coupling ternary phase diagram information with multiphase solidification simulations. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 413-414, 485-489	5.3	18
20	Study of spatial phase separation during solidification and its impact on the formation of macrosegregations. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 413-414, 192-199	5.3	8
19	Influence of argon gas bubbles and non-metallic inclusions on the flow behavior in steel continuous casting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 413-414, 115-120	5.3	51
18	Grain Sedimentation and Melt Convection Phenomena During Globular Equiaxed Solidification 2005 , 204-212		2
17	Modelling the thermosolutal convection, shrinkage flow and grain movement of globular equiaxed solidification using a three phase model. <i>International Journal of Cast Metals Research</i> , 2005 , 18, 221-228 ¹		15
16	Simulation of casting, homogenization, and hot rolling: consecutive process and microstructure modelling for aluminium sheet production. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2004 , 12, S19-S31	2	8
15	Modelling the solidification of hypermonotectic alloys. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2003 , 11, 755-769	2	27
14	Modeling of marangoni-induced droplet motion and melt convection during solidification of hypermonotectic alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2003 , 34, 3009-3019	2.3	49
13	Influence of Phase-Transport Phenomena on Macrosegregation and Structure Formation During Solidification. <i>Advanced Engineering Materials</i> , 2003 , 5, 62-66	3.5	24
12	Influence of convection and grain movement on globular equiaxed solidification. <i>International Journal of Heat and Mass Transfer</i> , 2003 , 46, 2819-2832	4.9	59
11	Modeling of globular equiaxed solidification with a two-phase approach. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002 , 33, 3673-3683	2.3	87
10	Numerical simulation of the casting process of titanium removable partial denture frameworks. <i>Journal of Materials Science: Materials in Medicine</i> , 2002 , 13, 301-6	4.5	6
9	Numerical simulation of the casting process of titanium tooth crowns and bridges. <i>Journal of Materials Science: Materials in Medicine</i> , 2001 , 12, 485-90	4.5	8
8	Application of laser measuring, numerical simulation and rapid prototyping to titanium dental castings. <i>Dental Materials</i> , 2001 , 17, 102-8	5.7	42
7	Numerical simulation of porosity-free titanium dental castings. <i>European Journal of Oral Sciences</i> , 1999 , 107, 307-15	2.3	4
6	Numerical study of porosity in titanium dental castings. <i>Journal of Materials Science: Materials in Medicine</i> , 1999 , 10, 519-25	4.5	12
5	Computer aided prediction and control of shrinkage porosity in titanium dental castings. <i>Dental Materials</i> , 1998 , 14, 321-8	5.7	22

4	Mathematical Modeling of the Early Stage of Clogging of the SEN During Continuous Casting of Ti-ULC Steel. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> ,1	2.5	3
3	Simulation of the Deformation of a Flexible Combo Bag in a DC Aluminium Casting273-278		
2	Influence of the Frequency of the Applied AC Current on the Electroslag Remelting Process139-146		23
1	Experimental Evaluation of MHD Modeling of EMS During Continuous Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> ,1	2.5	0