

# Brian G Thomas

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/1669912/brian-g-thomas-publications-by-citations.pdf>

**Version:** 2023-12-10

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

190  
papers

6,888  
citations

47  
h-index

77  
g-index

202  
ext. papers

7,687  
ext. citations

2.2  
avg, IF

6.24  
L-index

#	Paper	IF	Citations
190	State of the Art in Evaluation and Control of Steel Cleanliness.. <i>ISIJ International</i> , <b>2003</b> , 43, 271-291	1.7	408
189	Fixed grid techniques for phase change problems: A review. <i>International Journal for Numerical Methods in Engineering</i> , <b>1990</b> , 30, 875-898	2.4	358
188	Heat-transfer and solidification model of continuous slab casting: CON1D. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2003</b> , 34, 685-705	2.5	282
187	Simple model of microsegregation during solidification of steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2001</b> , 32, 1755-1767	2.3	224
186	Thermomechanical finite-element model of shell behavior in continuous casting of steel. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2004</b> , 35, 1151-1172	2.5	196
185	Mathematical Modeling of Iron and Steel Making Processes. Mathematical Modeling of Fluid Flow in Continuous Casting.. <i>ISIJ International</i> , <b>2001</b> , 41, 1181-1193	1.7	170
184	State of the art in the control of inclusions during steel ingot casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2006</b> , 37, 733-761	2.5	164
183	Inclusion removal by bubble flotation in a continuous casting mold. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2006</b> , 37, 361-379	2.5	131
182	Investigation of Fluid Flow and Steel Cleanliness in the Continuous Casting Strand. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2007</b> , 38, 63-83	2.5	130
181	Modeling of inclusion removal in a tundish. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>1999</b> , 30, 639-654	2.5	123
180	Simple constitutive equations for steel at high temperature. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , <b>1992</b> , 23, 903-918		113
179	Simulation of fluid flow inside a continuous slab-casting machine. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , <b>1990</b> , 21, 387-400		107
178	Modeling superheat removal during continuous casting of steel slabs. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>1992</b> , 23, 339-356	2.5	104
177	Flow Control with Local Electromagnetic Braking in Continuous Casting of Steel Slabs. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2008</b> , 39, 94-107	2.5	100
176	Initial development of thermal and stress fields in continuously cast steel billets. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , <b>1988</b> , 19, 2589-2602		98
175	Bubble formation during horizontal gas injection into downward-flowing liquid. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2001</b> , 32, 1143-1159	2.5	96
174	Simulation of Argon Gas Flow Effects in a Continuous Slab Caster. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>1994</b> , 25, 527-547	2.5	94

173	Modeling of the continuous casting of steel past, present, and future. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2002</b> , 33, 795-812	2.5	87
172	Study of transient flow and particle transport in continuous steel caster molds: Part I. Fluid flow. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2004</b> , 35, 685-702	2.5	86
171	Modeling transient slag-layer phenomena in the shell/mold gap in continuous casting of steel. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2003</b> , 34, 707-725	2.5	86
170	Mathematical Modeling of Iron and Steel Making Processes. Comparison of Four Methods to Evaluate Fluid Velocities in a Continuous Slab Casting Mold.. <i>ISIJ International</i> , <b>2001</b> , 41, 1262-1271	1.7	86
169	Turbulent flow of liquid steel and argon bubbles in slide-gate tundish nozzles: Part I. model development and validation. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2001</b> , 32, 253-267	2.5	85
168	Modeling creep and fatigue of copper alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2000</b> , 31, 2491-2502	2.3	83
167	Prediction of dendrite arm spacing for low alloy steel casting processes. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>1996</b> , 27, 689-693	2.5	83
166	Review on Modeling and Simulation of Continuous Casting. <i>Steel Research International</i> , <b>2018</b> , 89, 1700318	2.5	83
165	Numerical study of steady turbulent flow through bifurcated nozzles in continuous casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>1995</b> , 26, 749-765	2.5	80
164	Flow and thermal behavior of the top surface flux/powder layers in continuous casting molds. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>1996</b> , 27, 672-685	2.5	79
163	The use of water cooling during the continuous casting of steel and aluminum alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2005</b> , 36, 187-204	2.3	77
162	Effect of Electromagnetic Ruler Braking (EMBr) on Transient Turbulent Flow in Continuous Slab Casting using Large Eddy Simulations. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2012</b> , 43, 532-553	2.5	75
161	Transport and Entrapment of Particles in Steel Continuous Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2014</b> , 45, 22-35	2.5	74
160	Study of transient flow and particle transport in continuous steel caster molds: Part II. Particle transport. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2004</b> , 35, 703-714	2.5	73
159	Comparison of numerical modeling techniques for complex, two-dimensional, transient heat-conduction problems. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , <b>1984</b> , 15, 307-318		69
158	Thermo-mechanical models of steel solidification based on two elastic visco-plastic constitutive laws. <i>Journal of Materials Processing Technology</i> , <b>2008</b> , 197, 408-418	5.3	64
157	Computational and experimental study of turbulent flow in a 0.4-scale water model of a continuous steel caster. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2004</b> , 35, 967-982	2.5	64
156	A new mechanism of hook formation during continuous casting of ultra-low-carbon steel slabs. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2006</b> , 37, 1597-1611	2.3	62

155	Mathematical model of the thermal processing of steel ingots: Part I. Heat flow model. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , <b>1987</b> , 18, 119-130		62
154	Mathematical model of the thermal processing of steel ingots: Part II. Stress model. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , <b>1987</b> , 18, 131-147		60
153	Simulation of Microstructure and Behavior of Interfacial Mold Slag Layers in Continuous Casting of Steel. <i>ISIJ International</i> , <b>2006</b> , 46, 660-669	1.7	59
152	Effects of clogging, argon injection, and continuous casting conditions on flow and air aspiration in submerged entry nozzles. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2001</b> , 32, 707-722	2.5	59
151	Real-Time, Model-Based Spray-Cooling Control System for Steel Continuous Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2011</b> , 42, 87-103	2.5	58
150	Efficient thermo-mechanical model for solidification processes. <i>International Journal for Numerical Methods in Engineering</i> , <b>2006</b> , 66, 1955-1989	2.4	58
149	Turbulent flow of liquid steel and argon bubbles in slide-gate tundish nozzles: Part II. Effect of operation conditions and nozzle design. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2001</b> , 32, 269-284	2.5	58
148	Explicit coupled thermo-mechanical finite element model of steel solidification. <i>International Journal for Numerical Methods in Engineering</i> , <b>2009</b> , 78, 1-31	2.4	57
147	Micrograph evidence of meniscus solidification and sub-surface microstructure evolution in continuous-cast ultralow-carbon steels. <i>Acta Materialia</i> , <b>2006</b> , 54, 1165-1173	8.4	52
146	Large Inclusions in Plain-carbon Steel Ingots Cast by Bottom Teeming. <i>ISIJ International</i> , <b>2006</b> , 46, 670-679		50
145	Transient Turbulent Flow in a Liquid-Metal Model of Continuous Casting, Including Comparison of Six Different Methods. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2011</b> , 42, 987-1007	2.5	49
144	Measurement and Prediction of Lubrication, Powder Consumption, and Oscillation Mark Profiles in Ultra-low Carbon Steel Slabs. <i>ISIJ International</i> , <b>2006</b> , 46, 1635-1644	1.7	48
143	Large Eddy Simulations of Double-Ruler Electromagnetic Field Effect on Transient Flow During Continuous Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2014</b> , 45, 1098-1115	2.5	47
142	Issues in Thermal-Mechanical Modeling of Casting Processes.. <i>ISIJ International</i> , <b>1995</b> , 35, 737-743	1.7	45
141	Transient fluid flow and superheat transport in continuous casting of steel slabs. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2005</b> , 36, 801-823	2.5	44
140	Measurements of Molten Steel Surface Velocity and Effect of Stopper-rod Movement on Transient Multiphase Fluid Flow in Continuous Casting. <i>ISIJ International</i> , <b>2014</b> , 54, 2314-2323	1.7	43
139	Transient Fluid Flow during Steady Continuous Casting of Steel Slabs: Part I. Measurements and Modeling of Two-phase Flow. <i>ISIJ International</i> , <b>2014</b> , 54, 845-854	1.7	42
138	Turbulent flow through bifurcated nozzles. <i>International Journal for Numerical Methods in Fluids</i> , <b>1993</b> , 17, 23-47	1.9	42

137	Thermal and mechanical behavior of copper molds during thin-slab casting (I): Plant trial and mathematical modeling. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2002</b> , 33, 425-436	2.5	41
136	Analysis of thermomechanical behaviour in billet casting with different mould corner radii. <i>Ironmaking and Steelmaking</i> , <b>2002</b> , 29, 359-375	1.3	41
135	Transient Thermo-fluid Model of Meniscus Behavior and Slag Consumption in Steel Continuous Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2014</b> , 45, 1842-1864	2.5	40
134	Modeling of Transient Flow Phenomena in Continuous Casting of Steel. <i>Canadian Metallurgical Quarterly</i> , <b>1998</b> , 37, 197-212	0.9	40
133	Transient Mold Fluid Flow with Well- and Mountain-Bottom Nozzles in Continuous Casting of Steel. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2008</b> , 39, 870-884	2.5	38
132	Modeling and Measurements of Multiphase Flow and Bubble Entrapment in Steel Continuous Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2016</b> , 47, 548-565	2.5	37
131	Effects of a Magnetic Field on Turbulent Flow in the Mold Region of a Steel Caster. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2013</b> , 44, 1201-1221	2.5	37
130	Finite element modelling of turbulent fluid flow and heat transfer in continuous casting. <i>Applied Mathematical Modelling</i> , <b>1991</b> , 15, 226-243	4.5	37
129	Computational Modeling of Temperature, Flow, and Crystallization of Mold Slag During Double Hot Thermocouple Technique Experiments. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2013</b> , 44, 1264-1279	2.5	36
128	Solidification and Particle Entrapment during Continuous Casting of Steel. <i>Steel Research International</i> , <b>2008</b> , 79, 599-607	1.6	35
127	Investigation of strand surface defects using mould instrumentation and modelling. <i>Ironmaking and Steelmaking</i> , <b>2004</b> , 31, 485-494	1.3	35
126	Direct numerical simulations of magnetic field effects on turbulent flow in a square duct. <i>Physics of Fluids</i> , <b>2010</b> , 22, 075102	4.4	34
125	Equilibrium Model of Precipitation in Microalloyed Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2011</b> , 42, 524-539	2.3	31
124	Effect of refractory properties on initial bubble formation in continuous-casting nozzles. <i>Metals and Materials International</i> , <b>2010</b> , 16, 501-506	2.4	31
123	Modeling of steel grade transition in continuous slab casting processes. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , <b>1993</b> , 24, 379-393		30
122	Multiphysics Model of Metal Solidification on the Continuum Level. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , <b>2010</b> , 58, 371-392	1.3	29
121	Three-Dimensional Numerical Study of Impinging Water Jets in Runout Table Cooling Processes. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2008</b> , 39, 593-602	2.5	28
120	Electromagnetic Forces in Continuous Casting of Steel Slabs. <i>Metals</i> , <b>2019</b> , 9, 471	2.3	27

119	Large Eddy Simulations of Electromagnetic Braking Effects on Argon Bubble Transport and Capture in a Steel Continuous Casting Mold. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2018</b> , 49, 1360-1377	2.5	27
118	Measurement and Modeling of Heat Transfer Across Interfacial Mold Flux Layers. <i>Canadian Metallurgical Quarterly</i> , <b>1999</b> , 38, 363-375	0.9	27
117	Intermixing model of continuous casting during a grade transition. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>1996</b> , 27, 617-632	2.5	27
116	Fluid Flow, Dissolution, and Mixing Phenomena in Argon-Stirred Steel Ladles. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2018</b> , 49, 2722-2743	2.5	26
115	Looking into continuous casting mould. <i>Ironmaking and Steelmaking</i> , <b>2014</b> , 41, 242-249	1.3	26
114	Rise of an argon bubble in liquid steel in the presence of a transverse magnetic field. <i>Physics of Fluids</i> , <b>2016</b> , 28, 093301	4.4	26
113	Effect of Nozzle Port Angle on Transient Flow and Surface Slag Behavior During Continuous Steel-Slab Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2019</b> , 50, 52-76	2.5	26
112	Study of Computational Issues in Simulation of Transient Flow in Continuous Casting. <i>Steel Research International</i> , <b>2005</b> , 76, 33-43	1.6	25
111	Transient Two-Phase Flow in Slide-Gate Nozzle and Mold of Continuous Steel Slab Casting with and without Double-Ruler Electro-Magnetic Braking. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2016</b> , 47, 3080-3098	2.5	24
110	Thermal and mechanical behavior of copper molds during thin-slab casting (II): Mold crack formation. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2002</b> , 33, 437-449	2.5	24
109	Effect of Stopper-Rod Misalignment on Fluid Flow in Continuous Casting of Steel. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2011</b> , 42, 300-315	2.5	23
108	Basic oxygen furnace based steelmaking processes and cleanliness control at Baosteel. <i>Ironmaking and Steelmaking</i> , <b>2006</b> , 33, 129-139	1.3	23
107	Prediction and control of subsurface hooks in continuous cast ultra-low-carbon steel slabs. <i>Ironmaking and Steelmaking</i> , <b>2009</b> , 36, 39-49	1.3	22
106	Transient Fluid Flow during Steady Continuous Casting of Steel Slabs: Part II. Effect of Double-Ruler Electro-Magnetic Braking. <i>ISIJ International</i> , <b>2014</b> , 54, 855-864	1.7	21
105	Enthalpy-based feedback control algorithms for the Stefan problem <b>2012</b> ,		20
104	Microstructure near corners of continuous-cast steel slabs showing three-dimensional frozen meniscus and hooks. <i>Acta Materialia</i> , <b>2007</b> , 55, 6705-6712	8.4	20
103	Transient thermal model of the continuous single-wheel thin-strip casting process. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>1996</b> , 27, 509-525	2.5	19
102	Large Eddy Simulations of the Effects of EMB and SEN Submergence Depth on Turbulent Flow in the Mold Region of a Steel Caster. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2017</b> , 48, 162-178	2.5	18

101	Measurement of heat flux in dense air-mist cooling: Part I □ A novel steady-state technique. <i>Experimental Thermal and Fluid Science</i> , <b>2013</b> , 44, 147-160	3	18
100	Modeling of Transient Flow Phenomena in Continuous Casting of Steel		18
99	Measurement of heat flux in dense air-mist cooling: Part II □ The influence of mist characteristics on steady-state heat transfer. <i>Experimental Thermal and Fluid Science</i> , <b>2013</b> , 44, 161-173	3	17
98	Thermal-mechanical behaviour during initial solidification in continuous casting: steel grade effects. <i>International Journal of Cast Metals Research</i> , <b>2009</b> , 22, 8-14	1	17
97	Heat Transfer in Funnel-mould Casting: Effect of Plate Thickness. <i>ISIJ International</i> , <b>2008</b> , 48, 1380-1388	1.7	17
96	Multiphysics modeling of continuous casting of stainless steel. <i>Journal of Materials Processing Technology</i> , <b>2020</b> , 278, 116469	5.3	16
95	Evolution of Temperature Distribution and Microstructure in Multipass Welded AISI 321 Stainless Steel Plates With Different Thicknesses. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , <b>2015</b> , 137,	1.2	15
94	Enhanced Latent Heat Method to Incorporate Superheat Effects into Fixed-Grid Multiphysics Simulations. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , <b>2010</b> , 57, 396-413	1.3	15
93	MOULD SLAG PROPERTY MEASUREMENTS TO CHARACTERIZE CC MOULD □ SHELL GAP PHENOMENA. <i>Canadian Metallurgical Quarterly</i> , <b>2006</b> , 45, 79-94	0.9	15
92	Numerical study of flow and heat transfer in a molten flux layer. <i>International Journal of Heat and Fluid Flow</i> , <b>2005</b> , 26, 105-118	2.4	15
91	Mathematical Modeling of Multiphase Flow in Steel Continuous Casting. <i>ISIJ International</i> , <b>2019</b> , 59, 956-972	1.7	14
90	Model of Gas Flow Through Porous Refractory Applied to an Upper Tundish Nozzle. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2015</b> , 46, 388-405	2.5	14
89	The visualization of defect formation during casting processes. <i>Jom</i> , <b>2006</b> , 58, 16-18	2.1	14
88	The Thermal Distortion of a Funnel Mold. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2012</b> , 43, 1156-1172	2.5	13
87	Investigation of panel crack formation in steel ingots: Part I. Mathematical analysis and mid face panel cracks. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , <b>1988</b> , 19, 277-287		13
86	Bubble Behavior and Size Distributions in Stopper-Rod Nozzle and Mold during Continuous Casting of Steel Slabs. <i>ISIJ International</i> , <b>2018</b> , 58, 1443-1452	1.7	13
85	Effect of Grade on Thermal□Mechanical Behavior of Steel During Initial Solidification. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2017</b> , 48, 3777-3793	2.3	12
84	Direct numerical simulations of transverse and spanwise magnetic field effects on turbulent flow in a 2:1 aspect ratio rectangular duct. <i>Computers and Fluids</i> , <b>2011</b> , 51, 100-114	2.8	12

83	Measuring Mechanical Behavior of Steel During Solidification: Modeling the SSCC Test. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2011</b> , 42, 837-851	2.5	12
82	Optimisation of narrow face water slot design for Siderar slab casting mould. <i>Ironmaking and Steelmaking</i> , <b>2003</b> , 30, 235-239	1.3	12
81	Continuous Casting <b>2001</b> , 1595-1598		12
80	Review of Peritectic Solidification Mechanisms and Effects in Steel Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2020</b> , 51, 1875-1903	2.5	12
79	Measuring heat transfer during spray cooling using controlled induction-heating experiments and computational models. <i>Applied Mathematical Modelling</i> , <b>2013</b> , 37, 3181-3192	4.5	11
78	Feedback control of the two-phase Stefan problem, with an application to the continuous casting of steel <b>2010</b> ,		11
77	Investigation of panel crack formation in steel ingots: Part II. Off-corner panel cracks. <i>Metallurgical and Materials Transactions B - Process Metallurgy and Materials Processing Science</i> , <b>1988</b> , 19, 289-301		11
76	A reduced-order model of mould heat transfer in the continuous casting of steel. <i>Applied Mathematical Modelling</i> , <b>2016</b> , 40, 8530-8551	4.5	10
75	Particle-Size-Grouping Model of Precipitation Kinetics in Microalloyed Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2012</b> , 43, 1079-1096	2.3	10
74	Three-Dimensional Flow in a Driven Cavity Subjected to an External Magnetic Field. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>2015</b> , 137,	2.1	10
73	Measurement and Modeling of Heat Transfer Across Interfacial Mold Flux Layers		10
72	Agglomeration of Solid Inclusions in Molten Steel. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2019</b> , 50, 36-41	2.5	10
71	Modeling Argon Gas Behavior in Continuous Casting of Steel. <i>Jom</i> , <b>2018</b> , 70, 2148-2156	2.1	9
70	Online Recalibration of the State Estimators for a System With Moving Boundaries Using Sparse Discrete-in-Time Temperature Measurements. <i>IEEE Transactions on Automatic Control</i> , <b>2018</b> , 63, 1090-1098	5.0	9
69	Overview of Electromagnetic Forces to Control Flow During Continuous Casting of Steel. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2018</b> , 424, 012027	0.4	8
68	Thermal-Mechanical Model Calibration with Breakout Shell Measurements in Continuous Steel Slab Casting	3558362	
67	The optimization of mold taper for the Ilva-Dalmine round bloom caster. <i>Revue De Metallurgie</i> , <b>1994</b> , 91, 609-620		7
66	Effect of Melt Superheat and Alloy Size on the Mixing Phenomena in Argon-Stirred Steel Ladles. <i>Steel Research International</i> , <b>2019</b> , 90, 1800288	1.6	7



65	Simulation and validation of two-phase turbulent flow and particle transport in continuous casting of steel slabs. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2015</b> , 84, 012095	0.4	6
64	A Hybrid Eulerian-Eulerian Discrete-Phase Model of Turbulent Bubbly Flow. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>2018</b> , 140,	2.1	6
63	Application of enthalpy-based feedback control methodology to the two-sided stefan problem <b>2014</b> ,		6
62	Measurement of Molten Steel Surface Velocity with SVC and Nail Dipping during Continuous Casting Process <b>2011</b> , 51-58		6
61	Numerical simulation on inclusion transport in continuous casting mold. <i>International Journal of Minerals, Metallurgy, and Materials</i> , <b>2006</b> , 13, 293-300		6
60	The removal of superheat from continuous casting molds <b>1990</b> , 131-145		6
59	Electromagnetic Effects on Solidification Defect Formation in Continuous Steel Casting. <i>Jom</i> , <b>2020</b> , 72, 3610-3627	2.1	6
58	GPU accelerated simulations of three-dimensional flow of power-law fluids in a driven cube. <i>International Journal of Computational Fluid Dynamics</i> , <b>2017</b> , 31, 36-56	1.2	5
57	Visualization of Steel Continuous Casting Including a New Integral Method for Post-Processing Temperature Data. <i>Steel Research International</i> , <b>2019</b> , 90, 1800540	1.6	5
56	Meso-scale simulation of liquid feeding in an equiaxed dendritic mushy zone. <i>Materialia</i> , <b>2020</b> , 9, 100612	3.2	5
55	Monitoring of Meniscus Thermal Phenomena with Thermocouples in Continuous Casting of Steel <b>2011</b> , 119-126		5
54	Modeling of Stress, Distortion, and Hot Tearing <b>2008</b> , 449-461		5
53	Surface Defect Formation in Steel Continuous Casting. <i>Materials Science Forum</i> , <b>2018</b> , 941, 112-117	0.4	5
52	Effect of Single-Ruler Electromagnetic Braking (EMBr) Location on Transient Flow in Continuous Casting. <i>Journal for Manufacturing Science and Production</i> , <b>2015</b> , 15, 93-104		4
51	Multiphase Flow-Related Defects in Continuous Casting of Steel Slabs. <i>Minerals, Metals and Materials Series</i> , <b>2020</b> , 1161-1173	0.3	4
50	Thermo-mechanical behaviour during encapsulation of glass in a steel vessel. <i>International Journal of Pressure Vessels and Piping</i> , <b>2016</b> , 146, 203-215	2.4	4
49	Thermal Stress Cracking of Slide-Gate Plates in Steel Continuous Casting. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2016</b> , 47, 1453-1464	2.5	4
48	Bang-Bang Free Boundary Control of a Stefan Problem for Metallurgical Length Maintenance <b>2018</b> ,		4

47	Particle Transport and Deposition in a Turbulent Square Duct Flow With an Imposed Magnetic Field. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>2014</b> , 136,	2.1	4
46	Simulation of transient fluid flow in mold region during steel continuous casting. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2012</b> , 33, 012015	0.4	4
45	Effect of Thermal Buoyancy Force on the Flow, Temperature Distribution and Residence Time Distribution of Molten Steel in the Slab Casting Tundish <b>2012</b> , 327-334		4
44	Implementation of Temperature and Strain Micro-Sensors into a Casting Mold Surface <b>2011</b> , 127-134		4
43	Effect of geometry on void formation in commercial electroplating of thin strips to copper. <i>Surface and Coatings Technology</i> , <b>2008</b> , 202, 4153-4158	4.4	4
42	Analysis of copper alloy to stainless steel bonded panels for ITER first wall applications		4
41	Spread Sheet Model of Continuous Casting. <i>Journal of Engineering for Industry</i> , <b>1996</b> , 118, 37-44		4
40	Estimation of Time-Temperature-Transformation Diagrams of Mold Powder Slags from Thermo-analysis of Non-isothermal Crystallization. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , <b>2015</b> , 46, 286-303	2.5	3
39	Quenching and Partitioning of Plate Steels: Partitioning Design Methodology. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2019</b> , 50, 4701-4713	2.3	3
38	Measurement of Transient Meniscus Flow in Steel Continuous Casters and Effect of Electromagnetic Braking <b>2011</b> , 59-66		3
37	Modeling and Measurement of Residual Stresses in a Steel Vessel Containing Glass. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , <b>2011</b> , 133,	1.8	3
36	Thermal-Mechanical Model of Depression Formation in Steel Continuous Casting. <i>Minerals, Metals and Materials Series</i> , <b>2017</b> , 501-510	0.3	2
35	Large Eddy Simulations of the Effects of Double-Ruler Electromagnetic Braking and Nozzle Submergence Depth on Molten Steel Flow in A Commercial Continuous Casting Mold <b>2016</b> , 159-166		2
34	Measurement of the Solidification Front inside a Metallurgical Reactor <b>2011</b> , 85-93		2
33	Thermo-Mechanical Finite Element Model of Shell Behavior in the Continuous Casting of Steel. <i>Key Engineering Materials</i> , <b>2003</b> , 233-236, 827-834	0.4	2
32	Continuous Casting: Complex Models <b>2001</b> , 1599-1609		2
31	Modeling of Hot Tearing and Other Defects in Casting Processes <b>2009</b> , 362-374		2
30	Enthalpy-based Full-State Feedback Control of the Stefan Problem with Hysteresis <b>2019</b> ,		2

29	<b>2012,</b>			2
28	Transport and Entrapment of Particles in Steel Continuous Casting	277-286		2
27	Large Eddy Simulations of the Effects of Double-Ruler Electromagnetic Braking and Nozzle Submergence Depth on Molten Steel Flow in a Commercial Continuous Casting Mold. <i>Minerals, Metals and Materials Series, 2016,</i>	159-166	0.3	1
26	Hybrid Eulerian Eulerian Discrete Phase Model of Turbulent Bubbly Flow	2017,		1
25	<b>2011,</b>			1
24	Sensors for On-Line Monitoring of Molten Metal Quality	2011, 15-26		1
23	Implementation of a Real-time Model-based Spray-cooling Control System for Steel Continuous Casting	2011, 77-84		1
22	Transient Flow and Temperature Transport in Continuous Casting of Steel Slabs. <i>Journal of Heat Transfer, 2005,</i>	127, 807-807	1.8	1
21	Simulation of longitudinal surface defect in steel continuous casting. <i>IOP Conference Series: Materials Science and Engineering, 2020,</i>	861, 012016	0.4	1
20	Enthalpy-based Output Feedback Control of the Stefan Problem with Hysteresis*	2020,		1
19	Modeling of Inclusion Capture in a Steel Slab Caster with Vertical Section and Bending. <i>Metals, 2021,</i>	11, 654	2.3	1
18	Air Gap Measurement During Steel-Ingot Casting and Its Effect on Interfacial Heat Transfer. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2021,</i>	52, 2224	2.5	1
17	Dynamic Modeling of Unsteady Bulging in Continuous Casting of Steel. <i>Minerals, Metals and Materials Series, 2019,</i>	23-35	0.3	1
16	A 3D discrete-element model for simulating liquid feeding during dendritic solidification of steel. <i>IOP Conference Series: Materials Science and Engineering, 2019,</i>	529, 012031	0.4	1
15	Modeling Air Aspiration in Steel Continuous Casting Slide-Gate Nozzles. <i>Metals, 2021,</i>	11, 116	2.3	1
14	Fluid Flow and Inclusion Removal in Multi-Strand Tundish with Nozzle blockage	311-318		0
13	Pressure Distribution and Flow Rate Behavior in Continuous-Casting Slide-Gate Systems: PFSG. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1</i>		2.5	0
12	Modeling of Argon Gas Behavior in Continuous Casting of Steel. <i>Minerals, Metals and Materials Series, 2018,</i>	119-131	0.3	

- 11 Simulation of Heat Transfer in SLAB Continuous Casting Mold and New Formation Mechanism of Shell Hot Spots **2016**, 43-49
- 10 Influence of Heavy Reduction (HR) on the Internal Quality of the Bearing Steel GCr15 Bloom **2016**, 247-254
- 9 Time Zone Analysis of F-Curve for Intermixing during Ladle Change-Over **2012**, 335-342
- 8 Modeling of Multiscale and Multiphase Phenomena in Material Processing **2012**, 147-161
- 7 Analysis of the Transient Phenomena during Steel Continuous Casting through the On-line Detection Data **2011**, 155-162
- 6 New Sensors for the Velocity Measurement in Liquid Metal Processes **2011**, 43-50
- 5 Fluid Flow and Inclusion Motion in A Five-strand continuous casting tundish 19-26
- 4 Multiphase Flow in a Steelmaking Converter Using an Unconventional Lance 303-310
- 3 Investigating Dynamic Thermal Behavior of Continuous Casting of Steel with CONOFFLINE. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2020**, 51, 2917-2934 2.5
- 2 Grouping Methods of Cluster Dynamics Model for Precipitation Kinetics. *Metals*, **2020**, 10, 1685 2.3
- 1 Numerical Simulation of Turbulent Steel Cement Mold Under High Mass Flow Condition. *IOP Conference Series: Materials Science and Engineering*, **2018**, 424, 012033 0.4