Laurens Katgerman

List of Publications by Citations

203 papers	5,493 citations	40 h-index	69 g-index
207 ext. papers	5,960 ext. citations	4.1 avg, IF	5.62 L-index

#	Paper	IF	Citations
203	Mechanical properties in the semi-solid state and hot tearing of aluminium alloys. *Progress in Materials Science*, **2004**, 49, 629-711	42.2	522
202	In situ observations of dendritic fragmentation due to local solute-enrichment during directional solidification of an aluminum alloy. *Acta Materialia*, **2007**, 55, 4287-4292	8.4	203
201	Macrosegregation in direct-chill casting of aluminium alloys. *Progress in Materials Science*, **2008**, 53, 421-480	42.2	193
200	Criteria of Grain Refinement Induced by Ultrasonic Melt Treatment of Aluminum Alloys Containing Zr and Ti. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2010**, 41, 2056-2066	2.3	186
199	A Quest for a New Hot Tearing Criterion. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 1511-1519	2.3	166
198	Constitutive analysis of wrought magnesium alloy MgAl4Zn1. *Scripta Materialia*, **2007**, 57, 759-762	5.6	163
197	The effect of heat treatment on the structure and abrasive wear resistance of autocatalytic NiP and NiPSiC coatings. *Surface and Coatings Technology*, **2002**, 149, 263-278	4.4	158
196	Modelling of droplet dynamic and thermal histories during spray forming: individual droplet behaviour. *Acta Metallurgica Et Materialia*, **1993**, 41, 3097-3108		142
195	Characterization of Al-Si-alloys rapidly quenched from the melt. *Journal of Materials Science*, **1980**, 15, 2803-2810	4.3	118
194	Electroless NiP Composite Coatings: The Effect of Heat Treatment on the Microhardness of Substrate and Coating. *Scripta Materialia*, **1998**, 38, 1347-1353	5.6	108
193	Structure formation and macrosegregation under different process conditions during DC casting. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2004**, 384, 232-244	5.3	105
192	Experimental study of structure formation in binary AlCu alloys at different cooling rates. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2005**, 405, 1-10	5.3	102
191	Real-time observation of grain nucleation and growth during solidification of aluminium alloys. *Acta Materialia*, **2005**, 53, 2875-2880	8.4	99
190	Influence of substrate microstructure on the growth of anodic oxide layers. *Electrochimica Acta*, **2004**, 49, 1127-1140	6.7	95
189	Hot tearing criteria evaluation for direct-chill casting of an Al-4.5 pct Cu alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2005**, 36, 1537-1546	2.3	88
188	Effects of alloy composition and casting speed on structure formation and hot tearing during direct-chill casting of Al-Cu alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 3551-3561	2.3	85
187	A transmission electron microscopy study of hard anodic oxide layers on AlSi(Cu) alloys. *Electrochimica Acta*, **2004**, 49, 3169-3177	6.7	85

186	Contraction of aluminum alloys during and after solidification. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 1325-1335	2.3	80
185	Modelling of droplet dynamic and thermal histories during spray forming□. Effect of process parameters. *Acta Metallurgica Et Materialia*, **1993**, 41, 3109-3118		76
184	Ductility and Rheology of an Al-4.5% Cu Alloy from Room Temperature to Coherency Temperature. *Materials Science Forum*, **1996**, 217-222, 1209-1214	0.4	75
183	Hot workability analysis of extruded AZ magnesium alloys with processing maps. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 735-744	5.3	73
182	On the mechanism of grain refinement in Al□rTi alloys. *Journal of Alloys and Compounds*, **2011**, 509, 57-60	5.7	70
181	Effect of different grain structures on centerline macrosegregation during direct-chill casting. *Acta Materialia*, **2008**, 56, 1358-1365	8.4	67
180	Effects of melt temperature and casting speed on the structure and defect formation during direct-chill casting of an Al-Cu alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2005**, 36, 1965-1976	2.3	66
179	Influence of ultrasonic melt treatment on the formation of primary intermetallics and related grain refinement in aluminum alloys. *Journal of Materials Science*, **2011**, 46, 5252-5259	4.3	64
178	A Mathematical Model for Hot Cracking of Aluminum Alloys During D.C. Casting. *Journal of Metals*, **1982**, 34, 46-49		60
177	Modeling Macrosegregation during Direct-Chill Casting of Multicomponent Aluminum Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 180-189	2.3	59
176	Tensile behaviour of semi-solid industrial aluminium alloys AA3104 and AA5182. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2002**, 336, 1-6	5.3	52
175	Relationship between shrinkage-induced macrosegregation and the sump profile upon direct-chill casting. *Scripta Materialia*, **2006**, 55, 715-718	5.6	50
174	Constitutive Model for Aluminum Alloys Exposed to Fire Conditions. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2008**, 39, 778-789	2.3	49
173	Rapidly solidified aluminium alloys by meltspinning. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 375-377, 1212-1216	5.3	48
172	In situ investigation of the crystallization kinetics and the mechanism of grain refinement in aluminum alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 416, 18-32	5.3	45
171	Structure observations related to hot tearing of Al□u billets produced by direct-chill casting. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2006**, 420, 1-7	5.3	44
170	Voltage transients and morphology of AlSi(Cu) anodic oxide layers formed in H2SO4 at low temperature. *Surface and Coatings Technology*, **2002**, 157, 80-94	4.4	44
169	On the formation of the stircast structure. *Journal of Materials Science*, **1986**, 21, 389-394	4.3	43

168	In-situ formation of TiB 2 in a P/M aluminum matrix. *Scripta Materialia*, **1997**, 37, 293-297	5.6	42
167	Fracture behavior and mechanical properties of high strength aluminum alloys in the as-cast condition. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 497, 186-194	5.3	41
166	Thermal conductivity of metal powder-polymer feedstock for powder injection moulding. *Journal of Materials Science*, **1999**, 34, 1-5	4.3	41
165	Constitutive behavior of as-cast AA1050, AA3104, and AA5182. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2002**, 33, 1971-1980	2.3	40
164	AlSi(Cu) anodic oxide layers formed in H2SO4 at low temperature using different current waveforms. *Surface and Coatings Technology*, **2003**, 165, 232-240	4.4	40
163	Cold-Cracking Assessment in AA7050 Billets during Direct-Chill Casting by Thermomechanical Simulation of Residual Thermal Stresses and Application of Fracture Mechanics. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2009**, 40, 3304-3313	2.3	38
162	Solid-state reactions in low-phosphorus autocatalytic NiP–SiC coatings. *Surface and Coatings Technology*, **2001**, 148, 284-295	4.4	38
161	Cold cracking in DC-cast high strength aluminum alloy ingots: An intrinsic problem intensified by casting process parameters. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2011**, 528, 2831-2842	5.3	37
160	Friction in aluminium extrusion—Part 1: A review of friction testing techniques for aluminium extrusion. *Tribology International*, **2012**, 56, 89-98	4.9	36
159	Two-dimensional modelling and experimental study on microsegregation during solidification of an Al–Cu binary alloy. *Acta Materialia*, **2007**, 55, 1523-1532	8.4	35
158	Vickers microhardness of AlSi(Cu) anodic oxide layers formed in H2SO4 at low temperature. *Surface and Coatings Technology*, **2003**, 165, 309-315	4.4	34
157	Finite element method simulation of mushy zone behavior during direct-chill casting of an Al-4.5 pct Cu alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2004**, 35, 2917-2926	2.3	33
156	Modelling issues in macrosegregation predictions in direct chill castings. *Journal of Light Metals*, **2002**, 2, 149-159		33
155	The origin of weld seam defects related to metal flow in the hot extrusion of aluminium alloys EN AW-6060 and EN AW-6082. *Journal of Materials Processing Technology*, **2014**, 214, 2349-2358	5.3	32
154	Integrated Approach for Prediction of Hot Tearing. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2009**, 40, 2388-2400	2.3	32
153	Strain-dependent constitutive analysis of three wrought Mg–Al–Zn alloys. *Journal of Materials Science*, **2008**, 43, 7165-7170	4.3	32
152	Feathery grain growth during solidification under forced flow conditions. *Acta Materialia*, **2007**, 55, 3795–3801	8.4	31
151	Effect of Grain Refinement on Structure Evolution, Floating Grains, and Centerline Macrosegregation in Direct-Chill Cast AA2024 Alloy Billets. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2008**, 39, 450-461	2.3	31

150	The effect of ramping casting speed and casting temperature on temperature distribution and melt flow patterns in the sump of a DC cast billet. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 413-414, 144-150	5.3	30
149	Electrochemical investigation of rolled-in subsurface layers in commercially pure aluminium alloys with the micro-capillary cell technique. *Surface and Coatings Technology*, **2007**, 201, 4553-4560	4.4	27
148	Particles Co-Deposition by Electroless Nickel. *Scripta Materialia*, **1998**, 38, 1383-1389	5.6	26
147	Scale Rules for Macrosegregation during Direct-Chill Casting of Aluminum Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2008**, 39, 1206-1212	2.3	25
146	Micro-Mechanical Model of Hot Tearing at Triple Junctions in DC Casting. *Materials Science Forum*, **2002**, 396-402, 179-184	0.4	25
145	Contribution of forced centreline convection during direct chill casting of round billets to macrosegregation and structure of binary Al□Cu aluminium alloy. *Materials Science and Technology*, **2011**, 27, 890-896	1.5	24
144	The structure of stircast Al-6Cu. *Journal of Materials Science*, **1985**, 20, 4335-4344	4.3	24
143	Cold Cracking Development in AA7050 Direct Chill□Cast Billets under Various Casting Conditions. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2010**, 41, 2425-2434	2.3	23
142	The role of solute titanium and TiB2 particles in the liquid□solid phase transformation of aluminum alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 386, 20-26	5.3	23
141	Physical Simulation of Longitudinal Weld Seam Formation During Extrusion to Produce Hollow Aluminum Profiles. *Materials and Manufacturing Processes*, **2009**, 24, 409-421	4.1	22
140	Distribution of trace elements in a modified and grain refined aluminium-silicon hypoeutectic alloy. *Micron*, **2010**, 41, 554-9	2.3	22
139	Structural inhomogeneities of AlSi alloys rapidly quenched from the melt. *Journal of Materials Science*, **1982**, 17, 2887-2894	4.3	22
138	Effect of melt flow on macro- and microstructure evolution during solidification of an Al□4.5% Cu alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 413-414, 98-104	5.3	21
137	Experimental study of ordering kinetics in aluminum alloys during solidification. *Acta Materialia*, **2003**, 51, 4497-4504	8.4	20
136	Recent advances in hot tearing during casting of aluminium alloys. *Progress in Materials Science*, **2021**, 117, 100741	42.2	20
135	Analysis of the structure and resulting mechanical properties of aluminium extrusions containing a charge weld interface. *Journal of Materials Processing Technology*, **2016**, 229, 9-21	5.3	19
134	Microstructural features of intergranular brittle fracture and cold cracking in high strength aluminum alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 1828-1834	5.3	19
133	Factors affecting thermal contraction behavior of an AA7050 alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 3264-3270	5.3	19

132	A computational and experimental study on mold filling. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2001**, 32, 69-78	2.5	19
131	Production of Al□Ti□ grain refiner alloys by reactive synthesis of elemental powders: Part I. Reactive synthesis and characterization of alloys. *Journal of Materials Research*, **2000**, 15, 2620-2627	2.5	19
130	Influence of Melt Feeding Scheme and Casting Parameters During Direct-Chill Casting on Microstructure of an AA7050 Billet. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2012**, 43, 1565-1573	2.5	17
129	In-Situ Analysis of Coarsening during Directional Solidification Experiments in High-Solute Aluminum Alloys. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2009**, 40, 312-316	2.5	17
128	The effect of constitutive description of PIM feedstock viscosity in numerical analysis of the powder injection moulding process. *Journal of Materials Processing Technology*, **2006**, 178, 194-199	5.3	17
127	Periodic structural fluctuations during the solidification of aluminum alloys studied by neutron diffraction. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 367, 82-88	5.3	17
126	Hot tearing studies in AA5182. *Journal of Materials Engineering and Performance*, **2002**, 11, 537-543	1.6	17
125	Linear solidification contraction of binary and commercial aluminium alloys. *International Journal of Cast Metals Research*, **2002**, 14, 217-223	1	17
124	A Computer Model for Trajectories and Thermal Profiles of Atomised Droplets in Spray Forming. *Cast Metals*, **1990**, 3, 227-232		17
123	Microsegregation and extended solid solutions after rapid solidification of aluminium alloys. *Scripta Metallurgica*, **1983**, 17, 537-540		17
122	Theoretical analysis of ribbon thickness formation during meltspinning. *Scripta Metallurgica*, **1980**, 14, 861-864		17
121	Nucleation kinetics during the solidification of aluminum alloys. *Journal of Non-Crystalline Solids*, **2007**, 353, 3640-3643	3.9	16
120	Identification of a friction model for the bearing channel of hot aluminium extrusion dies by using ball-on-disc tests. *Tribology International*, **2012**, 50, 66-75	4.9	15
119	Shear Initiation of Al/MoO3-Based Reactive Materials. *Propellants, Explosives, Pyrotechnics*, **2007**, 32, 447-453	1.7	15
118	Solidification under Forced-Flow Conditions in a Shallow Cavity. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2007**, 38, 1317-1329	2.3	15
117	Role of grain refining in hot cracking and macrosegregation in direct chill cast AA 7075 billets. *Materials Science and Technology*, **2007**, 23, 1327-1335	1.5	15
116	Effect of Main Elements (Zn, Mg, and Cu) on Hot Tearing Susceptibility During Direct-Chill Casting of 7xxx Aluminum Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2019**, 50, 3603-3616	2.3	13
115	Optical and transmission electron microscopical study of the evolution of surface layer on recycled aluminium along the rolling mills. *Surface and Coatings Technology*, **2007**, 201, 4561-4570	4.4	13

114	First stages of grain coarsening in semi-solid AlCu alloys. *Scripta Materialia*, **2003**, 49, 717-722	5.6	13
113	Temperature effects in aluminium melts due to cavitation induced by high power ultrasound. *International Journal of Cast Metals Research*, **2009**, 22, 26-29	1	12
112	Semi-quantitative predictions of hot tearing and cold cracking in aluminum DC casting using numerical process simulator. *IOP Conference Series: Materials Science and Engineering*, **2012**, 33, 012068	0.4	12
111	In-situ observation of the nucleation kinetics and the mechanism of grain refinement in AlSi alloys (Part I). *Materials Letters*, **2010**, 64, 1016-1018	3.3	12
110	Role of Grain Refining in Macrosegregation upon Direct Chill Casting of AA 2024 Round Billet. *Materials Science Forum*, **2006**, 519-521, 1841-1846	0.4	12
109	Formation of Microstructure in Al-Si Alloys under Ultrasonic Melt Treatment999-1004		11
108	Tensile mechanical properties, constitutive parameters and fracture characteristics of an as-cast AA7050 alloy in the near-solidus temperature regime. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 679, 28-35	5.3	10
107	Effect of inlet geometry on macrosegregation during the direct chill casting of 7050 alloy billets: experiments and computer modelling. *IOP Conference Series: Materials Science and Engineering*, **2012**, 33, 012019	0.4	10
106	Combustion synthesis of TiB2-based cermets: modeling and experimental results. *Applied Physics A: Materials Science and Processing*, **2007**, 90, 159-163	2.6	10
105	A combined TEM and SKPFM investigation of the surface layers on rolled AA5050 aluminium alloy using ultra-microtomy. *Surface and Interface Analysis*, **2008**, 40, 1157-1163	1.5	10
104	The Influence of the Solid-State Bonding Process on the Mechanical Integrity of Longitudinal Weld Seams. *JSME International Journal Series A-Solid Mechanics and Material Engineering*, **2006**, 49, 63-68		10
103	Estimation ofT 0-curves from existing phase diagrams. *Journal of Materials Science Letters*, **1983**, 2, 444-446		10
102	A modified hot tearing criterion for direct chill casting of aluminium alloys. *Materials Science and Technology*, **2016**, 32, 846-854	1.5	9
101	Experimental and Theoretical Studies of the Hot Tearing Behavior of Al-xZn-2Mg-2Cu Alloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2017**, 48, 4744-4754	2.3	9
100	Numerical issues in modelling macrosegregation during DC casting of a multi-component aluminium alloy. *International Journal of Numerical Methods for Heat and Fluid Flow*, **2009**, 19, 917-930	4.5	9
99	Understanding the electrochemical, microstructural and morphological changes during hot rolling from a corrosion perspective. *Surface and Coatings Technology*, **2006**, 201, 828-834	4.4	9
98	Formation of Hot Tear Under Controlled Solidification Conditions. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2014**, 45, 2855-2862	2.3	8
97	Macrosegregation Mechanisms in Direct-Chill Casting of Aluminium Alloys. *Materials Science Forum*, **2009**, 630, 193-199	0.4	8

96	On the mechanism of the formation of primary intermetallics under ultrasonic melt treatment in an Al-Zr-Ti alloy. *IOP Conference Series: Materials Science and Engineering*, **2012**, 27, 012002	0.4	8
95	Microstructural analysis of modification and grain refinement in a hypoeutectic Al□Si alloy. *International Journal of Cast Metals Research*, **2009**, 22, 108-110	1	8
94	An efficient technique for describing a multi-component open system solidification path. *Calphad: Computer Coupling of Phase Diagrams and Thermochemistry*, **2008**, 32, 478-484	1.9	8
93	Thermal Contraction during Solidification of Aluminium Alloys. *Materials Science Forum*, **2006**, 519-521, 1681-1686	0.4	8
92	Comparison of numerical codes for simulation of powder injection moulding. *Powder Metallurgy*, **2003**, 46, 55-60	1.9	8
91	Analysis of process limits for continuous thixotropic slurry casting. *Journal of Materials Science*, **1985**, 20, 700-709	4.3	8
90	In Search of the Prediction of Hot Cracking in Aluminium Alloys **2008**, 11-26		8
89	Prediction of pressure required to extrude a wrought magnesium alloy using optimized strain-dependent constitutive parameters. *Journal of Materials Processing Technology*, **2011**, 211, 1241-1246	5.3	7
88	Modeling of double action extrusion□A novel extrusion process for friction characterization at the billet□die bearing interface. *Tribology International*, **2010**, 43, 2084-2091	4.9	7
87	Experimental Study of Grain Growth in Aluminium Melts under the Influence of Ultrasonic Melt Treatment. *Materials Science Forum*, **2007**, 561-565, 987-990	0.4	7
86	Influence of matrix alloying elements on reactive synthesis of 2124 aluminium alloy metal matrix composites. *Materials Science and Technology*, **1998**, 14, 873-876	1.5	7
85	Modelling of defects in aluminium cast products. *Progress in Materials Science*, **2021**, 123, 100824	42.2	7
84	Room-temperature low-cycle fatigue and fracture behaviour of asymmetrically rolled high-strength 7050 aluminium alloy plates. *International Journal of Fatigue*, **2021**, 142, 105919	5	7
83	Mechanical properties and cold cracking evaluations of four 7□series aluminum alloys using a newly developed index. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 698, 230-237	5.3	6
82	Linear Contraction Behavior of Low-Carbon, Low-Alloy Steels During and After Solidification Using Real-Time Measurements. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2014**, 45, 1445-1456	2.3	6
81	A comparative electrochemical study of commercial and model aluminium alloy (AA5050). *Materials and Corrosion - Werkstoffe Und Korrosion*, **2009**, 60, 399-406	1.6	6
80	Effect of Structure on Hot Tearing Properties of Aluminum Alloys. *Materials Science Forum*, **2007**, 561-565, 995-998	0.4	6
79	Microstructural Observations of Cracking in AA5182 at Semi-Solid Temperatures. *Materials Science Forum*, **2000**, 331-337, 265-270	0.4	6

78	Developments in Continuous Casting of Aluminium Alloys. *Cast Metals*, **1991**, 4, 133-139		6
77	The nucleation of a second phase on a screw dislocation. *Acta Metallurgica*, **1978**, 26, 361-367		6
76	Microstructural and X-ray tomographic analysis of damage in extruded aluminium weld seams. *Materials Science and Technology*, **2015**, 31, 94-104	1.5	5
75	Principles of Solidification. *Materials Today*, **2011**, 14, 502	21.8	5
74	Application of a Criterion for Cold Cracking to Casting High Strength Aluminium Alloys. *Materials Science Forum*, **2010**, 654-656, 1432-1435	0.4	5
73	Solidification phenomena related to direct chill casting of aluminium alloys: fundamental studies and future challenges. *Materials Technology*, **2009**, 24, 152-156	2.1	5
72	Effect of controlled forced convection on macrosegregation and structure in direct-chill casting of an aluminium alloy. *International Journal of Cast Metals Research*, **2009**, 22, 99-102	1	5
71	Physical Simulation of Longitudinal Weld Seam Formation in Aluminium Extrusions. *Materials Science Forum*, **2006**, 519-521, 1403-1408	0.4	5
70	Mixing and solidification of a turbulent liquid jet in a co-flowing stream. *International Journal for Numerical Methods in Engineering*, **1987**, 24, 231-249	2.4	5
69	Influence of matrix alloying elements on reactive synthesis of 2124 aluminium alloy metal matrix composites. *Materials Science and Technology*, **1998**, 14, 873-876	1.5	5
68	Numerical Simulation of Residual Thermal Stresses in AA7050 Alloy during DC-Casting Using ALSIM5. *Advanced Materials Research*, **2010**, 89-91, 319-324	0.5	4
67	Towards Predictive Control of Extrusion Weld Seams: An Integrated Approach. *Key Engineering Materials*, **2009**, 424, 9-17	0.4	4
66	Liquid Film Migration in Aluminium Brazing Sheet?. *Materials Science Forum*, **2006**, 519-521, 1151-1156	0.4	4
65	Upstream Fluid Flow Effects in Aluminium DC Casting. *Materials Science Forum*, **2002**, 396-402, 65-70	0.4	4
64	Production of Al□Ti□ grain refiner alloys by reactive synthesis of elemental powders: Part II. Grain refining performance of alloys and secondary processing. *Journal of Materials Research*, **2000**, 15, 2628-2635	2.5	4
63	EFFECT OF PROCESS CONDITIONS DURING MELTSPINNING ON SOLIDIFICATION MORPHOLOGY OF ALUMINIUM ALLOYS **1985**, 819-822		4
62	RELATION BETWEEN SOLIDIFICATION MORPHOLOGY AND TEXTURE OF MELT-SPUN Al AND Al-ALLOYS **1985**, 823-826		4
61	Thermal expansion/contraction behavior of AA7050 alloy in the as-cast condition relevant to thermomechanical simulation of residual thermal stresses. *International Journal of Materials Research*, **2011**, 102, 1286-1293	0.5	3

60	Modeling of primary dendrite arm spacing variations in thin-slab casting of low carbon and low alloy steels. *IOP Conference Series: Materials Science and Engineering*, **2012**, 27, 012046	0.4	3
59	Constitutive behaviour of an as-cast AA7050 alloy in the sub-solidus temperature range. *IOP Conference Series: Materials Science and Engineering*, **2012**, 27, 012074	0.4	3
58	Numerical Evaluation of Cyclone Application for Impurities Removal from Molten Aluminum. *Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science*, **2008** , 39, 364-373	2.5	3
57	Unsteady-State Solidification under Forced Flow Conditions. *Materials Science Forum*, **2007**, 561-565, 991-994	0.4	3
56	Production of SiC particulate reinforced aluminium composites by melt spinning. *Journal of Materials Science*, **1994**, 29, 6439-6444	4.3	3
55	3D Microstructure Reconstruction of Aluminium Alloys Quenched during Solidification. *Materials Science Forum*, **2006**, 519-521, 1707-1712	0.4	2
54	Experimental Study and Modelling of Combustion Front Velocity in Ti-2B and Ti-C Based Reactant Mixtures. *Advances in Science and Technology*, **2006**, 45, 2656-2663	0.1	2
53	Consequences of Hot Rolling of Recycled AA5050 on Filiform Corrosion. *Materials Science Forum*, **2006**, 519-521, 687-692	0.4	2
52	Network model of fluid flow in semi-solid aluminum alloys. *Computational Materials Science*, **2006**, 38, 67-74	3.2	2
51	Shear Initiated Reactions in Energetic and Reactive Materials. *Materials Research Society Symposia Proceedings*, **2005**, 896, 61		2
50	Modelling of liquid-liquid metal mixing. *Flow, Turbulence and Combustion*, **1987**, 44, 175-195		2
49	The effect of soaking times on the mechanical properties of rapidly solidified aluminium alloys. *Journal of Materials Science Letters*, **1983**, 2, 67-70		2
48	Cold Cracking During Direct-Chill Casting **2011**, 669-674		2
47	Formation of Microstructure in Al-Si Alloys Under Ultrasonic Melt Treatment **2012**, 999-1004		2
46	Mixing and Solidification of a Turbulent Liquid Metal Jet. *Lecture Notes in Engineering*, **1986**, 397-407		2
45	Semi-solid Constitutive Parameters and Failure Behavior of a Cast AA7050 Alloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2021**, 52, 871-888	2.3	2
44	Role of Solute and Transition Metals in Grain Refinement of Aluminum Alloys under Ultrasonic Melt Treatment1389-1394		2
43	Effect of Casting Speed and Grain Refining on Macrosegregation of a DC Cast 6061 Aluminum Alloy277-282		2

42	Quenching Study on the Solidification of Aluminum Alloys290-295		2
41	Effect of V and N on the microstructure evolution during continuous casting of steel. *IOP Conference Series: Materials Science and Engineering*, **2012**, 27, 012059	0.4	1
40	Cold Cracking during Direct-chill Casting **2011**, 667-674		1
39	Influence of dendrite arrangement on coarsening during solidification of high-solute Al alloys. *International Journal of Cast Metals Research*, **2009**, 22, 271-274	1	1
38	Combustion synthesis of electrical contact materials. *International Journal of Self-Propagating High-Temperature Synthesis*, **2007**, 16, 184-188	0.7	1
37	Effects of Solidification Range on the Structure of Aluminium Alloys Obtained under Conditions of Constant Melt Flow. *Materials Science Forum*, **2006**, 519-521, 1789-1794	0.4	1
36	Thermal Contraction of AA5182 for Prediction of Ingot Distortions. *Key Engineering Materials*, **2006**, 306-308, 977-982	0.4	1
35	Characterisation of 316L powder injection moulding feedstock for purpose of numerical simulation of PIM process. *Powder Metallurgy*, **2003**, 46, 236-240	1.9	1
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