Laurens Katgerman

List of Publications by Year
in descending order

196	6,613	61945	76872
papers	citations	43 h-index	74 g-index

207	207	207	2780
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanical properties in the semi-solid state and hot tearing of aluminium alloys. Progress in Materials Science, 2004, 49, 629-711.	16.0	631
2	In situ observations of dendritic fragmentation due to local solute-enrichment during directional solidification of an aluminum alloy. Acta Materialia, 2007, 55, 4287-4292.	3.8	240
3	Macrosegregation in direct-chill casting of aluminium alloys. Progress in Materials Science, 2008, 53, 421-480.	16.0	224
4	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.	1.1	220
5	A Quest for a New Hot Tearing Criterion. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 1511-1519.	1.1	206
6	The effect of heat treatment on the structure and abrasive wear resistance of autocatalytic NiP and NiPâ€“SiC coatings. Surface and Coatings Technology, 2002, 149, 263-278.	2.2	187
7	Constitutive analysis of wrought magnesium alloy Mgâ€“Al4â€“Zn1. Scripta Materialia, 2007, 57, 759-762.	2.6	180
8	Modelling of droplet dynamic and thermal histories during spray formingâ€”I. individual droplet behaviour. Acta Metallurgica Et Materialia, 1993, 41, 3097-3108.	1.9	163
9	Characterization of Al-Si-alloys rapidly quenched from the melt. Journal of Materials Science, 1980, 15, 2803-2810.	1.7	135
10	Experimental study of structure formation in binary Alâ€“Cu alloys at different cooling rates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 405, 1-10.	2.6	118
11	Electroless Niâ€“P Composite Coatings: The Effect of Heat Treatment on the Microhardness of Substrate and Coating. Scripta Materialia, 1998, 38, 1347-1353.	2.6	117
12	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.	2.6	117
13	Influence of substrate microstructure on the growth of anodic oxide layers. Electrochimica Acta, 2004, 49, 1127-1140.	2.6	114
14	Real-time observation of grain nucleation and growth during solidification of aluminium alloys. Acta Materialia, 2005, 53, 2875-2880.	3.8	113
15	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.	1.1	109
16	A transmission electron microscopy study of hard anodic oxide layers on AlSi(Cu) alloys. Electrochimica Acta, 2004, 49, 3169-3177.	2.6	101
17	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.	1.1	97
18	Contraction of aluminum alloys during and after solidification. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2004, 35, 1325-1335.	1.1	95

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19	Recent advances in hot tearing during casting of aluminium alloys. Progress in Materials Science, 2021, 117, 100741.	16.0	89
20	Modelling of droplet dynamic and thermal histories during spray formingâ€"II. Effect of process parameters. Acta Metallurgica Et Materialia, 1993, 41, 3109-3118.	1.9	88
21	Ductility and Rheology of an Al-4.5% Cu Alloy from Room Temperature to Coherency Temperature. Materials Science Forum, 1996, 217-222, 1209-1214.	0.3	83
22	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.	1.1	82
23	Effect of different grain structures on centerline macrosegregation during direct-chill casting. Acta Materialia, 2008, 56, 1358-1365.	3.8	80
24	On the mechanism of grain refinement in Alâ€"Zrâ€"Ti alloys. Journal of Alloys and Compounds, 2011, 509, 57-60.	2.8	80
25	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.	1.7	79
26	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.	2.6	76
27	A Mathematical Model for Hot Cracking of Aluminum Alloys During D.C. Casting. Journal of Metals, 1982, 34, 46-49.	0.2	71
28	Modeling Macrosegregation during Direct-Chill Casting of Multicomponent Aluminum Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 180-189.	1.1	63
29	Constitutive Model for Aluminum Alloys Exposed to Fire Conditions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 778-789.	1.1	61
30	Thermal conductivity of metal powder-polymer feedstock for powder injection moulding. Journal of Materials Science, 1999, 34, 1-5.	1.7	57
31	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.	2.6	55
32	Structure observations related to hot tearing of Alâ€"Cu billets produced by direct-chill casting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 420, 1-7.	2.6	55
33	Relationship between shrinkage-induced macrosegregation and the sump profile upon direct-chill casting. Scripta Materialia, 2006, 55, 715-718.	2.6	55
34	Rapidly solidified aluminium alloys by meltspinning. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 375-377, 1212-1216.	2.6	53
35	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.	2.6	51
36	On the formation of the stircast structure. Journal of Materials Science, 1986, 21, 389-394.	1.7	50

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37	Voltage transients and morphology of AlSi(Cu) anodic oxide layers formed in H2SO4 at low temperature. Surface and Coatings Technology, 2002, 157, 80-94.	2.2	50
38	Integrated Approach for Prediction of Hot Tearing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 2388-2400.	1.1	50
39	Friction in aluminium extrusionâ€"Part 1: A review of friction testing techniques for aluminium extrusion. Tribology International, 2012, 56, 89-98.	3.0	50
40	AlSi(Cu) anodic oxide layers formed in H2SO4 at low temperature using different current waveforms. Surface and Coatings Technology, 2003, 165, 232-240.	2.2	49
41	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.	2.6	47
42	In-situ formation of TiB 2 in a P/M aluminum matrix. Scripta Materialia, 1997, 37, 293-297.	2.6	46
43	Constitutive behavior of as-cast AA1050, AA3104, and AA5182. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 1971-1980.	1.1	46
44	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.	1.1	46
45	Two-dimensional modelling and experimental study on microsegregation during solidification of an Alâ€"Cu binary alloy. Acta Materialia, 2007, 55, 1523-1532.	3.8	45
46	Vickers microhardness of AlSi(Cu) anodic oxide layers formed in H2SO4 at low temperature. Surface and Coatings Technology, 2003, 165, 309-315.	2.2	44
47	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.	2.6	44
48	Solid-state reactions in low-phosphorus autocatalytic NiPâ€"SiC coatings. Surface and Coatings Technology, 2001, 148, 284-295.	2.2	43
49	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.	1.1	40
50	Feathery grain growth during solidification under forced flow conditions. Acta Materialia, 2007, 55, 3795-3801.	3.8	39
51	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.	3.1	39
52	Effect of Grain Refinement on Structure Evolution, â€œFloatingâ€•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.	1.1	37
53	Strain-dependent constitutive analysis of three wrought Mgâ€"Alâ€"Zn alloys. Journal of Materials Science, 2008, 43, 7165-7170.	1.7	35
54	Modelling issues in macrosegregation predictions in direct chill castings. Journal of Light Metals, 2002, 2, 149-159.	0.8	34

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55	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.	2.6	33
56	Cold Cracking Development in AA7050 Direct Chillâ€“Cast Billets under Various Casting Conditions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 2425-2434.	1.1	33
57	Modelling of defects in aluminium cast products. Progress in Materials Science, 2022, 123, 100824.	16.0	33
58	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.	1.1	32
59	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.	1.1	32
60	Particles Co-Deposition by Electroless Nickel. Scripta Materialia, 1998, 38, 1383-1389.	2.6	30
61	Physical Simulation of Longitudinal Weld Seam Formation During Extrusion to Produce Hollow Aluminum Profiles. Materials and Manufacturing Processes, 2009, 24, 409-421.	2.7	29
62	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.	3.1	29
63	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.	2.2	28
64	The structure of stircast Al-6Cu. Journal of Materials Science, 1985, 20, 4335-4344.	1.7	27
65	Micro-Mechanical Model of Hot Tearing at Triple Junctions in DC Casting. Materials Science Forum, 2002, 396-402, 179-184.	0.3	26
66	The role of solute titanium and TiB2 particles in the liquidâ€“solid phase transformation of aluminum alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 386, 20-26.	2.6	26
67	Distribution of trace elements in a modified and grain refined aluminiumâ€“silicon hypoeutectic alloy. Micron, 2010, 41, 554-559.	1.1	26
68	Contribution of forced centreline convection during direct chill casting of round billets to macrosegregation and structure of binary Alâ€“Cu aluminium alloy. Materials Science and Technology, 2011, 27, 890-896.	0.8	26
69	Structural inhomogeneities of AlSi alloys rapidly quenched from the melt. Journal of Materials Science, 1982, 17, 2887-2894.	1.7	23
70	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.	2.6	23
71	Effect of melt flow on macro- and microstructure evolution during solidification of an Alâ€“4.5% Cu alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 413-414, 98-104.	2.6	22
72	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.	3.1	22

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73	Role of grain refining in hot cracking and macrosegregation in direct chill cast AA 7075 billets. Materials Science and Technology, 2007, 23, 1327-1335.	0.8	22
74	Production of Alâ€“Tiâ€“C 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.	1.2	21
75	Experimental study of ordering kinetics in aluminum alloys during solidification. Acta Materialia, 2003, 51, 4497-4504.	3.8	21
76	Factors affecting thermal contraction behavior of an AA7050 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 3264-3270.	2.6	21
77	A computational and experimental study on mold filling. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2001, 32, 69-78.	1.0	20
78	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.	1.0	20
79	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.	3.0	20
80	Hot Tearing Studies in AA5182. Journal of Materials Engineering and Performance, 2002, 11, 537-543.	1.2	19
81	Nucleation kinetics during the solidification of aluminum alloys. Journal of Non-Crystalline Solids, 2007, 353, 3640-3643.	1.5	19
82	Shear Initiation of Al/MoO3-Based Reactive Materials. Propellants, Explosives, Pyrotechnics, 2007, 32, 447-453.	1.0	19
83	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.	1.0	19
84	A Computer Model for Trajectories and Thermal Profiles of Atomised Droplets in Spray Forming. Cast Metals, 1990, 3, 227-232.	0.4	18
85	Linear solidification contraction of binary and commercial aluminium alloys. International Journal of Cast Metals Research, 2002, 14, 217-223.	0.5	18
86	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.	2.6	18
87	Solidification under Forced-Flow Conditions in a Shallow Cavity. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2007, 38, 1317-1329.	1.1	18
88	Room-temperature low-cycle fatigue and fracture behaviour of asymmetrically rolled high-strength 7050 aluminium alloy plates. International Journal of Fatigue, 2021, 142, 105919.	2.8	18
89	Theoretical analysis of ribbon thickness formation during meltspinning. Scripta Metallurgica, 1980, 14, 861-864.	1.2	17
90	Microsegregation and extended solid solutions after rapid solidification of aluminium alloys. Scripta Metallurgica, 1983, 17, 537-540.	1.2	17

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91	A modified hot tearing criterion for direct chill casting of aluminium alloys. Materials Science and Technology, 2016, 32, 846-854.	0.8	16
92	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.	1.1	16
93	Role of Grain Refining in Macrosegregation upon Direct Chill Casting of AA 2024 Round Billet. Materials Science Forum, 2006, 519-521, 1841-1846.	0.3	15
94	First stages of grain coarsening in semi-solid Al?Cu alloys. Scripta Materialia, 2003, 49, 717-722.	2.6	14
95	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.	2.2	14
96	Thermal Contraction during Solidification of Aluminium Alloys. Materials Science Forum, 2006, 519-521, 1681-1686.	0.3	13
97	Temperature effects in aluminium melts due to cavitation induced by high power ultrasound. International Journal of Cast Metals Research, 2009, 22, 26-29.	0.5	13
98	In-situ observation of the nucleation kinetics and the mechanism of grain refinement in Alâ€“Si alloys (Part I). Materials Letters, 2010, 64, 1016-1018.	1.3	13
99	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.	2.6	13
100	Comparison of numerical codes for simulation of powder injection moulding. Powder Metallurgy, 2003, 46, 55-60.	0.9	12
101	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.	0.4	12
102	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.	0.3	12
103	Estimation ofT 0-curves from existing phase diagrams. Journal of Materials Science Letters, 1983, 2, 444-446.	0.5	11
104	Combustion synthesis of TiB2-based cermets: modeling and experimental results. Applied Physics A: Materials Science and Processing, 2008, 90, 159-163.	1.1	11
105	Macrosegregation Mechanisms in Direct-Chill Casting of Aluminium Alloys. Materials Science Forum, 0, 630, 193-199.	0.3	11
106	Numerical issues in modelling macrosegregation during DC casting of a multiâ€component aluminium alloy. International Journal of Numerical Methods for Heat and Fluid Flow, 2009, 19, 917-930.	1.6	11
107	Modeling of double action extrusionâ€”A novel extrusion process for friction characterization at the billetâ€“die bearing interface. Tribology International, 2010, 43, 2084-2091.	3.0	11
108	Principles of Solidification. Materials Today, 2011, 14, 502.	8.3	11

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109	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.	1.1	11
110	A combined TEM and SKPFM investigation of the surface layers on rolled AA5050 aluminium alloy using ultraâ€microtomy. Surface and Interface Analysis, 2008, 40, 1157-1163.	0.8	10
111	An efficient technique for describing a multi-component open system solidification path. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2008, 32, 478-484.	0.7	10
112	Microstructural analysis of modification and grain refinement in a hypoeutectic Alâ€“Si alloy. International Journal of Cast Metals Research, 2009, 22, 108-110.	0.5	10
113	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.	0.3	10
114	Formation of Hot Tear Under Controlled Solidification Conditions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 2855-2862.	1.1	10
115	Microstructural and X-ray tomographic analysis of damage in extruded aluminium weld seams. Materials Science and Technology, 2015, 31, 94-104.	0.8	10
116	In Search of the Prediction of Hot Cracking in Aluminium Alloys. , 2008, , 11-26.		10
117	Analysis of process limits for continuous thixotropic slurry casting. Journal of Materials Science, 1985, 20, 700-709.	1.7	9
118	Understanding the electrochemical, microstructural and morphological changes during hot rolling from a corrosion perspective. Surface and Coatings Technology, 2006, 201, 828-834.	2.2	9
119	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.	0.1	9
120	Mechanical properties and cold cracking evaluations of four 7Ã—Ã—Ã— series aluminum alloys using a newly developed index. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 698, 230-237.	2.6	9
121	Influence of matrix alloying elements on reactive synthesis of 2124 aluminium alloy metal matrix composites. Materials Science and Technology, 1998, 14, 873-876.	0.8	8
122	Effect of Structure on Hot Tearing Properties of Aluminum Alloys. Materials Science Forum, 2007, 561-565, 995-998.	0.3	8
123	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.	3.1	8
124	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.	0.3	8
125	Tailoring precipitation/properties and related mechanisms for a high-strength aluminum alloy plate via low-temperature retrogression and re-aging processes. Journal of Materials Science and Technology, 2022, 120, 15-35.	5.6	8
126	Microstructural Observations of Cracking in AA5182 at Semi-Solid Temperatures. Materials Science Forum, 2000, 331-337, 265-270.	0.3	7

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127	Experimental Study of Grain Growth in Aluminium Melts under the Influence of Ultrasonic Melt Treatment. Materials Science Forum, 2007, 561-565, 987-990.	0.3	7
128	A comparative electrochemical study of commercial and model aluminium alloy (AA5050). Materials and Corrosion - Werkstoffe Und Korrosion, 2009, 60, 399-406.	0.8	7
129	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.	1.1	7
130	The nucleation of a second phase on a screw dislocation. Acta Metallurgica, 1978, 26, 361-367.	2.1	6
131	Developments in Continuous Casting of Aluminium Alloys. Cast Metals, 1991, 4, 133-139.	0.4	6
132	Production of Alâ€“Tiâ€“C 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.	1.2	6
133	Liquid Film Migration in Aluminium Brazing Sheet?. Materials Science Forum, 2006, 519-521, 1151-1156.	0.3	6
134	Mixing and solidification of a turbulent liquid jet in a co-flowing stream. International Journal for Numerical Methods in Engineering, 1987, 24, 231-249.	1.5	5
135	Physical Simulation of Longitudinal Weld Seam Formation in Aluminium Extrusions. Materials Science Forum, 2006, 519-521, 1403-1408.	0.3	5
136	Solidification phenomena related to direct chill casting of aluminium alloys: fundamental studies and future challenges. Materials Technology, 2009, 24, 152-156.	1.5	5
137	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.	0.5	5
138	Application of a Criterion for Cold Cracking to Casting High Strength Aluminium Alloys. Materials Science Forum, 2010, 654-656, 1432-1435.	0.3	5
139	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.	0.3	5
140	Formation of Microstructure in Al-Si Alloys Under Ultrasonic Melt Treatment. , 2012, , 999-1004.		5
141	RELATION BETWEEN SOLIDIFICATION MORPHOLOGY AND TEXTURE OF MELT-SPUN Al AND Al-ALLOYS. , 1985, , 823-826.		5
142	Influence of matrix alloying elements on reactive synthesis of 2124 aluminium alloy metal matrix composites. Materials Science and Technology, 1998, 14, 873-876.	0.8	5
143	Production of SiC particulate reinforced aluminium composites by melt spinning. Journal of Materials Science, 1994, 29, 6439-6444.	1.7	4
144	Upstream Fluid Flow Effects in Aluminium DC Casting. Materials Science Forum, 2002, 396-402, 65-70.	0.3	4

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145	Shear Initiated Reactions in Energetic and Reactive Materials. Materials Research Society Symposia Proceedings, 2005, 896, 61.	0.1	4
146	Towards Predictive Control of Extrusion Weld Seams: An Integrated Approach. Key Engineering Materials, 0, 424, 9-17.	0.4	4
147	Numerical Simulation of Residual Thermal Stresses in AA7050 Alloy during DC-Casting Using ALSIM5. Advanced Materials Research, 0, 89-91, 319-324.	0.3	4
148	EFFECT OF PROCESS CONDITIONS DURING MELTSPINNING ON SOLIDIFICATION MORPHOLOGY OF ALUMINIUM ALLOYS. , 1985, , 819-822.		4
149	The effect of soaking times on the mechanical properties of rapidly solidified aluminium alloys. Journal of Materials Science Letters, 1983, 2, 67-70.	0.5	3
150	Modelling of liquid-liquid metal mixing. Flow, Turbulence and Combustion, 1987, 44, 175-195.	0.2	3
151	Network model of fluid flow in semi-solid aluminum alloys. Computational Materials Science, 2006, 38, 67-74.	1.4	3
152	Consequences of Hot Rolling of Recycled AA5050 on Filiform Corrosion. Materials Science Forum, 2006, 519-521, 687-692.	0.3	3
153	Unsteady-State Solidification under Forced Flow Conditions. Materials Science Forum, 2007, 561-565, 991-994.	0.3	3
154	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.	1.0	3
155	Constitutive behaviour of an as-cast AA7050 alloy in the sub-solidus temperature range. IOP Conference Series: Materials Science and Engineering, 2012, 27, 012074.	0.3	3
156	Effect of Casting Speed and Grain Refining on Macrosegregation of a DC Cast 6061 Aluminum Alloy. , 0, , 277-282.		3
157	Casting characteristics of high silicon added F3S.20S Duralcan composites. International Journal of Cast Metals Research, 2000, 13, 59-65.	0.5	2
158	Effect of strain rate and thermal history on the constitutive behaviour of Al â€“ Mg alloy AA 5182. Materials Science and Technology, 2004, 20, 1233-1236.	0.8	2
159	Functionally Graded TiC-Based Cermets via Combustion Synthesis and Quasi-Isostatic Pressing. Materials Science Forum, 2005, 492-493, 63-68.	0.3	2
160	3D Microstructure Reconstruction of Aluminium Alloys Quenched during Solidification. Materials Science Forum, 2006, 519-521, 1707-1712.	0.3	2
161	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.	0.2	2
162	Combustion synthesis of electrical contact materials. International Journal of Self-Propagating High-Temperature Synthesis, 2007, 16, 184-188.	0.2	2

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163	Quenching Study on the Solidification of Aluminum Alloys. , 0, , 290-295.		2
164	Mixing and Solidification of a Turbulent Liquid Metal Jet. Lecture Notes in Engineering, 1986, , 397-407.	0.1	2
165	On the Mechanism of Grain Refinement by Ultrasonic Melt Treatment in the Presence of Transition Metals. , 2016, , 415-419.		2
166	Experimental and Numerical Investigations of Mould Filling of Thin Wall Horizontal Aluminium Castings. Materials Science Forum, 2000, 329-330, 461-466.	0.3	1
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