

Zhongyun Fan

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236
papers

5,651
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240
ext. papers

6,642
ext. citations

3.4
avg, IF

6.3
L-index

#	Paper	IF	Citations
236	Semisolid metal processing. <i>International Materials Reviews</i> , 2002 , 47, 49-85	16.1	707
235	Grain refining mechanism in the Al/AlTiB system. <i>Acta Materialia</i> , 2015 , 84, 292-304	8.4	295
234	Enhanced heterogeneous nucleation in AZ91D alloy by intensive melt shearing. <i>Acta Materialia</i> , 2009 , 57, 4891-4901	8.4	194
233	Effect of iron on the microstructure and mechanical property of AlMgSiMn and AlMgSi diecast alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 564, 130-139	5.3	172
232	Mechanisms of enhanced heterogeneous nucleation during solidification in binary AlMg alloys. <i>Acta Materialia</i> , 2012 , 60, 1528-1537	8.4	136
231	Semi-solid processing of engineering alloys by a twin-screw rheomoulding process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2001 , 299, 210-217	5.3	134
230	Processing of advanced Al/SiC particulate metal matrix composites under intensive shearing via novel Rheo-process. <i>Composites Part A: Applied Science and Manufacturing</i> , 2009 , 40, 144-151	8.4	127
229	Microstructural evolution of rheo-diecast AZ91D magnesium alloy during heat treatment. <i>Acta Materialia</i> , 2006 , 54, 689-699	8.4	112
228	Solidification behaviour of AZ91D alloy under intensive forced convection in the RDC process. <i>Acta Materialia</i> , 2005 , 53, 4345-4357	8.4	106
227	Mechanisms of grain refinement by intensive shearing of AZ91 alloy melt. <i>Acta Materialia</i> , 2010 , 58, 6526-6534	8.4	103
226	Effects of solute content on grain refinement in an isothermal melt. <i>Acta Materialia</i> , 2011 , 59, 2704-2712	8.4	102
225	An Epitaxial Model for Heterogeneous Nucleation on Potent Substrates. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 1409-1418	2.3	99
224	Microstructure and mechanical properties of rheo-diecast (RDC) aluminium alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 412, 298-306	5.3	98
223	Advanced operator splitting-based semi-implicit spectral method to solve the binary phase-field crystal equations with variable coefficients. <i>Journal of Computational Physics</i> , 2009 , 228, 1612-1623	4.1	83
222	The effect of Al ₈ Mn ₅ intermetallic particles on grain size of as-cast Mg-Al-Zn AZ91D alloy. <i>Intermetallics</i> , 2010 , 18, 1683-1689	3.5	79
221	Microstructural evolution of the in situ Al-15wt.%Mg ₂ Si composite with extra Si contents. <i>Scripta Materialia</i> , 2000 , 42, 1101-1106	5.6	71
220	Secondary solidification behaviour of the AlSiMg alloy prepared by the rheo-diecasting process. <i>Acta Materialia</i> , 2007 , 55, 1589-1598	8.4	70

219	Oxidation of Aluminium Alloy Melts and Inoculation by Oxide Particles. <i>Transactions of the Indian Institute of Metals</i> , 2012 , 65, 653-661	1.2	69
218	Morphological development of solidification structures under forced fluid flow: a Monte-Carlo simulation. <i>Acta Materialia</i> , 2002 , 50, 4571-4585	8.4	69
217	A generalized law of mixtures. <i>Journal of Materials Science</i> , 1994 , 29, 141-150	4.3	68
216	Development of a super ductile diecast AlMgSi alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 556, 824-833	5.3	66
215	Development of the rheo-diecasting process for magnesium alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 413-414, 72-78	5.3	60
214	Effect of heat treatment and Fe content on the microstructure and mechanical properties of die-cast AlSiCu alloys. <i>Materials and Design</i> , 2015 , 85, 823-832	8.1	57
213	Mechanism for Zr poisoning of Al-Ti-B based grain refiners. <i>Acta Materialia</i> , 2019 , 164, 428-439	8.4	56
212	Crystallographic effects on the corrosion of twin roll cast AZ31 Mg alloy sheet. <i>Acta Materialia</i> , 2017 , 133, 90-99	8.4	55
211	Characterisation of magnesium oxide and its interface with Mg in MgAl-based alloys. <i>Philosophical Magazine Letters</i> , 2011 , 91, 516-529	1	55
210	Processing of Aluminum-Graphite Particulate Metal Matrix Composites by Advanced Shear Technology. <i>Journal of Materials Engineering and Performance</i> , 2009 , 18, 1230-1240	1.6	53
209	Microstructure and mechanical properties of rheo-diecast AZ91D magnesium alloy. <i>Journal of Materials Science</i> , 2006 , 41, 3631-3644	4.3	53
208	Refining grain structure and porosity of an aluminium alloy with intensive melt shearing. <i>Scripta Materialia</i> , 2011 , 64, 209-212	5.6	51
207	Development of a high strength AlMg ₂ SiMgZn based alloy for high pressure die casting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 626, 165-174	5.3	50
206	Effects of intensive forced melt convection on the mechanical properties of Fe containing AlSi based alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 445-446, 65-72	5.3	48
205	Solidification behavior of Sn-15 wt pct Pb alloy under a high shear rate and high intensity of turbulence during semisolid processing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002 , 33, 3511-3520	2.3	47
204	Modelling of rheological behaviour of semisolid metal slurries Part 1 Theory. <i>Materials Science and Technology</i> , 2002 , 18, 237-242	1.5	43
203	Shear enhanced heterogeneous nucleation in some Mg- and Al-alloys. <i>International Journal of Cast Metals Research</i> , 2009 , 22, 318-322	1	41
202	Rheo-processing of an alloy specifically designed for semi-solid metal processing based on the AlMgSi system. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 476, 341-349	5.3	40

201	Fabrication of biodegradable nano-sized β -TCP/Mg composite by a novel melt shearing technology. <i>Materials Science and Engineering C</i> , 2012 , 32, 1253-1258	8.3	39
200	Microstructural Evolution and Solidification Behavior of Al-Mg-Si Alloy in High-Pressure Die Casting. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 3185-3197	7.3	39
199	Effect of Mg level on the microstructure and mechanical properties of die-cast AlSiCu alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 642, 340-350	5.3	37
198	Solidification behaviour under intensive forced convection. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2005 , 413-414, 229-235	5.3	35
197	Effect of traces of silicon on the formation of Fe-rich particles in pure magnesium and the corrosion susceptibility of magnesium. <i>Journal of Alloys and Compounds</i> , 2015 , 619, 396-400	5.7	34
196	Structure-property analysis of in-situ Al/Mg/Al ₂ O ₃ metal matrix composites synthesized using ultrasonic cavitation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 628, 30-40	5.3	34
195	Investigation of the microstructure and the influence of iron on the formation of Al ₈ Mn ₅ particles in twin roll cast AZ31 magnesium alloy. <i>Journal of Alloys and Compounds</i> , 2015 , 628, 195-198	5.7	33
194	Corrosion Behavior of Pure Magnesium with Low Iron Content in 3.5 wt% NaCl Solution. <i>Journal of the Electrochemical Society</i> , 2015 , 162, C362-C368	3.9	33
193	Microstructural refinement of AZ91D die-cast alloy by intensive shearing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 2929-2934	5.3	33
192	Grain refinement in a AlZnMgCuTi alloy by intensive melt shearing: A multi-step nucleation mechanism. <i>Journal of Crystal Growth</i> , 2011 , 314, 285-292	1.6	32
191	Melt conditioning by advanced shear technology (MCAST) for refining solidification microstructures. <i>International Journal of Cast Metals Research</i> , 2009 , 22, 103-107	1	32
190	Investigation on the microstructural refinement of an Mg ₉₅ wt.% Zn alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 419, 349-356	5.3	32
189	Semisolid processing characteristics of AM series Mg alloys by rheo-diecasting. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2006 , 37, 779-787	2.3	31
188	The Role of Intermetallics on the Corrosion Initiation of Twin Roll Cast AZ31 Mg Alloy. <i>Journal of the Electrochemical Society</i> , 2015 , 162, C442-C448	3.9	30
187	Simultaneous Primary Si Refinement and Eutectic Modification in Hypereutectic AlSi Alloys. <i>Transactions of the Indian Institute of Metals</i> , 2012 , 65, 663-667	1.2	30
186	Solidification of Al-Sn-Cu Based Immiscible Alloys under Intense Shearing. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2009 , 40, 2202-2211	2.3	30
185	Atomic ordering in liquid aluminium induced by substrates with misfits. <i>Computational Materials Science</i> , 2014 , 85, 1-7	3.2	29
184	Microstructural evaluation of melt conditioned twin roll cast Al/Mg alloy. <i>Materials Science and Technology</i> , 2011 , 27, 1833-1839	1.5	28

183	Isothermal coarsening of fine and spherical particles in semisolid slurry of Mg ₉ Al ₁ Zn alloy under low shear. <i>Scripta Materialia</i> , 2006 , 55, 971-974	5.6	28
182	Effects of rheo-die casting process on the microstructure and mechanical properties of AM50 magnesium alloy. <i>Materials Science and Technology</i> , 2005 , 21, 1019-1024	1.5	27
181	Formation of the Fe-Containing Intermetallic Compounds during Solidification of Al-5Mg-2Si-0.7Mn-1.1Fe Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 2173-2181	2.3	24
180	Prenucleation Induced by Crystalline Substrates. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 2766-2777	2.3	24
179	The effects of rheo-diecasting on the integrity and mechanical properties of Mg ₉ Al ₁ Zn. <i>Scripta Materialia</i> , 2006 , 54, 207-211	5.6	24
178	Tracking of immiscible interfaces in multiple-material mixing processes. <i>Computational Materials Science</i> , 2004 , 29, 103-118	3.2	24
177	Modelling of rheological behaviour of semisolid metal slurries Part 2 Steady state behaviour. <i>Materials Science and Technology</i> , 2002 , 18, 243-249	1.5	24
176	The impact of melt conditioning on microstructure, texture and ductility of twin roll cast aluminium alloy strips. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 650, 365-373	5.3	23
175	A new concept for growth restriction during solidification. <i>Acta Materialia</i> , 2018 , 152, 248-257	8.4	23
174	Extremely fine and uniform microstructure of magnesium AZ91D alloy sheets produced by melt conditioned twin roll casting. <i>Materials Science and Technology</i> , 2009 , 25, 599-606	1.5	23
173	High shear dispersion technology prior to twin roll casting for high performance magnesium/SiC p metal matrix composite strip fabrication. <i>Composites Part A: Applied Science and Manufacturing</i> , 2016 , 90, 349-358	8.4	23
172	Heterogeneous Nucleation of Al Grain on Primary AlFeMnSi Intermetallic Investigated Using 3D SEM Ultramicrotomy and HRTEM. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 3971-3980	2.3	22
171	Effect of Substrate Chemistry on Prenucleation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 6231-6242	2.3	22
170	Microstructural refinement of Al _{0.2} Si alloy by intensive shearing. <i>Materials Letters</i> , 2010 , 64, 671-673	3.3	21
169	Rheo-diecasting of AlSi ₁₂ Pb immiscible alloys. <i>Scripta Materialia</i> , 2006 , 54, 789-793	5.6	21
168	The Impact of Melt-Conditioned Twin-Roll Casting on the Downstream Processing of an AZ31 Magnesium Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012 , 43, 1035-1047	2.3	20
167	Melt Conditioning of Light Metals by Application of High Shear for Improved Microstructure and Defect Control. <i>Jom</i> , 2017 , 69, 1071-1076	2.1	20
166	High modulus AlSiMgCu/Mg ₂ SiTiB ₂ hybrid nanocomposite: Microstructural characteristics and micromechanics-based analysis. <i>Journal of Alloys and Compounds</i> , 2017 , 694, 313-324	5.7	19

165	Modelling of rheological behaviour of semisolid metal slurries Part 4 Effects of particle morphology. <i>Materials Science and Technology</i> , 2002 , 18, 258-267	1.5	19
164	Processing of immiscible metallic alloys by rheomixing process. <i>Materials Science and Technology</i> , 2001 , 17, 837-842	1.5	19
163	Atomic ordering in the liquid adjacent to an atomically rough solid surface. <i>Computational Materials Science</i> , 2018 , 153, 73-81	3.2	19
162	Recycling of high grade die casting AM series magnesium scrap with the melt conditioned high pressure die casting (MC-HPDC) process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 2664-2669	5.3	18
161	Microstructure and Mechanical Properties of a Rheo-Diecast Mg–10Zn–4.5Al Alloy. <i>Materials Transactions</i> , 2005 , 46, 2221-2228	1.3	18
160	Improve mechanical properties of high pressure die cast Al9Si3Cu alloy via dislocation enhanced precipitation. <i>Journal of Alloys and Compounds</i> , 2019 , 785, 1015-1022	5.7	17
159	Solidification behavior of the remnant liquid in the sheared semisolid slurry of Sn15 wt.%Pb alloy. <i>Scripta Materialia</i> , 2002 , 46, 205-210	5.6	17
158	Heterogeneous nucleation in Mg7Zr alloy under die casting condition. <i>Materials Letters</i> , 2015 , 160, 263-267	3.3	16
157	Effect of melt conditioning on heat treatment and mechanical properties of AZ31 alloy strips produced by twin roll casting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 620, 223-232	5.3	16
156	Twin Roll Casting of Al-Mg Alloy with High Added Impurity Content. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 2842-2854	2.3	16
155	Weibull statistical analysis of the effect of melt conditioning on the mechanical properties of AM60 alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 566, 119-125	5.3	16
154	Grain Refinement of Deoxidized Copper. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 4988-5011	2.3	16
153	Crystallographic study of nucleation in SiC particulate reinforced magnesium matrix composite. <i>Journal of Alloys and Compounds</i> , 2017 , 706, 430-437	5.7	15
152	Improvement of mechanical properties of Al-Si alloy with effective grain refinement by in-situ integrated Al2.2Ti1B-Mg refiner. <i>Journal of Alloys and Compounds</i> , 2017 , 710, 166-171	5.7	15
151	Influence of Intensive Melt Shearing on the Microstructure and Mechanical Properties of an Al-Mg Alloy with High Added Impurity Content. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011 , 42, 3141-3149	2.3	15
150	Solidification behaviour of an AA5754 Al alloy ingot cast with high impurity content. <i>International Journal of Materials Research</i> , 2012 , 103, 1228-1234	0.5	15
149	Modelling of rheological behaviour of semisolid metal slurries Part 3 Transient state behaviour. <i>Materials Science and Technology</i> , 2002 , 18, 250-257	1.5	15
148	Effect of short T6 heat treatment on the microstructure and the mechanical properties of newly developed die-cast AlSiMgMn alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020 , 788, 139610	5.3	15

147	Microstructure evolution and mechanical properties of new die-cast Al-Si-Mg-Mn alloys. <i>Materials and Design</i> , 2020 , 187, 108394	8.1	15
146	Continuous Twin Screw Rheo-Extrusion of an AZ91D Magnesium Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012 , 43, 4331-4344	2.3	14
145	Processing of Ultrafine-Size Particulate Metal Matrix Composites by Advanced Shear Technology. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2009 , 40, 691-701	2.3	14
144	Development of the Rheo-Diecasting Process for Mg-Alloys. <i>Materials Science Forum</i> , 2005 , 488-489, 405-412	0.4	14
143	Competitive Heterogeneous Nucleation Between Zr and MgO Particles in Commercial Purity Magnesium. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 2182-2192	2.3	13
142	Grain Refinement and Improvement of Solidification Defects in Direct-Chill Cast Billets of A4032 Alloy by Melt Conditioning. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2017 , 48, 2481-2492	2.5	13
141	A physical approach to the direct recycling of Mg-alloy scrap by the rheo-diecasting process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 472, 251-257	5.3	13
140	Influence of porosity characteristics on the variability in mechanical properties of high pressure die casting (HPDC) AlSi7MgMn alloys. <i>Journal of Manufacturing Processes</i> , 2020 , 56, 500-509	5	12
139	Prenucleation at the liquid-Al/Al ₂ O ₃ and the liquid-Al/MgO interfaces. <i>Computational Materials Science</i> , 2020 , 171, 109258	3.2	12
138	Effect of solutionising and ageing on the microstructure and mechanical properties of a high strength die-cast AlMgZnSi alloy. <i>Materials Chemistry and Physics</i> , 2015 , 167, 88-96	4.4	11
137	Impeding Nucleation for More Significant Grain Refinement. <i>Scientific Reports</i> , 2020 , 10, 9448	4.9	11
136	Solidification Behavior of Intensively Sheared Hypoeutectic Al-Si Alloy Liquid. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011 , 42, 1117-1126	2.3	11
135	Prenucleation at the Interface Between MgO and Liquid Magnesium: An Ab Initio Molecular Dynamics Study. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020 , 51, 788-797	2.3	11
134	Interfacial characterisation of overcasting a cast Al-Si-Mg (A356) alloy on a wrought Al-Mg-Si (AA6060) alloy. <i>Journal of Materials Processing Technology</i> , 2017 , 243, 197-204	5.3	10
133	The Nature of Native MgO in Mg and Its Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020 , 51, 2957-2974	2.3	10
132	Degassing LM25 aluminium alloy by novel degassing technology with intensive melt shearing. <i>International Journal of Cast Metals Research</i> , 2013 , 26, 16-21	1	10
131	Direct chill rheocasting (DCRC) of AZ31 Mg alloy. <i>Materials Science and Technology</i> , 2006 , 22, 1489-1498	1.5	10
130	Morphological development of solidification structures under forced fluid flow: experimental observation. <i>Materials Science and Technology</i> , 2003 , 19, 573-580	1.5	10

129	Hydrodynamic analysis of binary immiscible metallurgical flow in a novel mixing process: rheomixing. <i>Applied Physics A: Materials Science and Processing</i> , 2005 , 81, 549-559	2.6	10
128	Influence of reinforcing particle distribution on the casting characteristics of Al-SiCp composites. <i>Journal of Materials Processing Technology</i> , 2020 , 279, 116580	5.3	10
127	Improved Defect Control and Mechanical Property Variation in High-Pressure Die Casting of A380 Alloy by High Shear Melt Conditioning. <i>Jom</i> , 2018 , 70, 2726-2730	2.1	10
126	Melt Conditioned Direct Chill (MC-DC) Casting of AA-6111 Aluminium Alloy Formulated from Incinerator Bottom Ash (IBA). <i>Recycling</i> , 2019 , 4, 37	3.2	9
125	Melt Conditioned Direct Chill (MC-DC) Casting of Al Alloys. <i>Transactions of the Indian Institute of Metals</i> , 2013 , 66, 117-121	1.2	9
124	Effect of high shear rate on solidification microstructure of semisolid AZ91D alloy. <i>Transactions of Nonferrous Metals Society of China</i> , 2010 , 20, s868-s872	3.3	9
123	Solidification Behavior and Microstructural Evolution of Near-Eutectic Zn-Al Alloys under Intensive Shear. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2009 , 40, 185-195	2.3	9
122	Grain refinement of DC cast magnesium alloys with intensive melt shearing. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012043	0.4	9
121	Fluid flow aspects of twin-screw extruder process: numerical simulations of TSE rheomixing. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2003 , 11, 771-790	2	9
120	Effect of solutes on grain refinement. <i>Progress in Materials Science</i> , 2021 , 123, 100809	42.2	9
119	Melt Protection of Mg-Al Based Alloys. <i>Metals</i> , 2016 , 6, 131	2.3	9
118	Numerical modelling of melt-conditioned direct-chill casting. <i>Applied Mathematical Modelling</i> , 2020 , 77, 1310-1330	4.5	9
117	Improved degassing efficiency and mechanical properties of A356 aluminium alloy castings by high shear melt conditioning (HSMC) technology. <i>Journal of Materials Processing Technology</i> , 2021 , 294, 117146	5.3	9
116	Understanding the Thermodynamics and Crystal Structure of Complex Fe Containing Intermetallic Phases Formed on Solidification of Aluminium Alloys. <i>Jom</i> , 2019 , 71, 1731-1736	2.1	8
115	Surface oxidation of molten AZ91D magnesium alloy in air. <i>International Journal of Cast Metals Research</i> , 2014 , 27, 167-175	1	8
114	Thermomechanical Treatment of High-Shear Melt-Conditioned Twin-Roll Cast Strip of Recycled AA5754 Alloy. <i>Jom</i> , 2019 , 71, 2018-2024	2.1	8
113	Effect of Al-5Ti-1B Grain Refiner Addition on the Formation of Intermetallic Compounds in Al-Mg-Si-Mn-Fe Alloys. <i>Materials Science Forum</i> , 2015 , 828-829, 53-57	0.4	7
112	Effect of MgO on Phase Selection in AlMgSiBeMn Alloys. <i>Transactions of the Indian Institute of Metals</i> , 2015 , 68, 1167-1172	1.2	7

111	Variation improvement of mechanical properties of Mg-9Al-1Zn alloy with melt conditioned high pressure die casting. <i>Materials Characterization</i> , 2018 , 144, 498-504	3.9	7
110	Grain refinement of DHP copper by elemental additions. <i>International Journal of Cast Metals Research</i> , 2015 , 28, 248-256	1	7
109	Effect of intensive shearing on morphology of primary silicon and properties of hypereutectic AlSi alloy. <i>Materials Science and Technology</i> , 2010 , 26, 975-980	1.5	7
108	A Monte Carlo simulation of solidification structure formation under melt shearing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004 , 365, 330-335	5.3	7
107	Macro-heterogeneities in microstructures, concentrations, defects and tensile properties of die cast AlMgSi alloys. <i>Materials Science and Technology</i> , 2017 , 33, 2223-2233	1.5	7
106	Effective Degassing for Reduced Variability in High-Pressure Die Casting Performance. <i>Jom</i> , 2019 , 71, 824-830	2.1	7
105	Microstructure and mechanical properties of new die-cast quaternary Al-Cu-Si-Mg alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 800, 140357	5.3	7
104	Identification of key liquid metal flow features in the physical conditioning of molten aluminium alloy with high shear processing. <i>Computational Materials Science</i> , 2017 , 131, 35-43	3.2	6
103	Characterization of AlN Inclusion Particles Formed in Commercial Purity Aluminum. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019 , 50, 2519-2526	2.3	6
102	Repeatability of tensile properties in high pressure die-castings of an Al-Mg-Si-Mn alloy. <i>Metals and Materials International</i> , 2015 , 21, 936-943	2.4	6
101	An Analytical Model for Solute Segregation at Liquid Metal/Solid Substrate Interface. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014 , 45, 5508-5516	2.3	6
100	Application of External Fields to Technology of Metal-Matrix Composite Materials 2013 , 1037-1044		6
99	Degassing of LM24 Al alloy by intensive melt shearing. <i>International Journal of Cast Metals Research</i> , 2011 , 24, 307-313	1	6
98	Transition of amorphous to crystalline oxide film in initial oxide overgrowth on liquid metals. <i>Materials Science and Technology</i> , 2011 , 27, 1033-1039	1.5	6
97	Twin Roll Casting and Melt Conditioned Twin-Roll Casting of Magnesium. <i>Solid State Phenomena</i> , 2008 , 141-143, 195-200	0.4	6
96	Effects of Mg addition on the Al ₆ (Fe,Mn) intermetallic compounds and the grain refinement of Al in Al-Fe-Mn alloys. <i>Materials Characterization</i> , 2021 , 171, 110758	3.9	6
95	Effect of heat treatment on microstructure and tensile properties of die-cast Al-Cu-Si-Mg alloys. <i>Journal of Alloys and Compounds</i> , 2021 , 881, 160559	5.7	6
94	Atomic Ordering at the Liquid-Al/MgAl ₂ O ₄ Interfaces from Ab Initio Molecular Dynamics Simulations. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020 , 51, 6318-6326	2.3	5

93	An ab initio study on stacking and stability of TiAl ₃ phases. <i>Computational Materials Science</i> , 2018 , 153, 309-314	3.2	5
92	Molecular dynamic simulation of the atomic structure of aluminum solid-liquid interfaces. <i>Materials Research Express</i> , 2014 , 1, 025705	1.7	5
91	Influence of intensive melt shearing on subsequent hot rolling and the mechanical properties of twin roll cast AZ31 strips. <i>Materials Letters</i> , 2015 , 144, 54-57	3.3	5
90	Surface oxidation of molten AZ31, AM60B and AJ62 magnesium alloys in air. <i>International Journal of Cast Metals Research</i> , 2014 , 27, 301-311	1	5
89	Influence of Lead on the Microstructure and Corrosion Behavior of Melt-Conditioned, Twin-Roll-Cast AZ91D Magnesium Alloy. <i>Corrosion</i> , 2012 , 68, 548-556	1.8	5
88	Effects of lattice mismatch on interfacial structures of liquid and solidified Al in contact with hetero-phase substrates: MD simulations. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012007	0.4	5
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