

Zhongyun Fan

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/9134443/zhongyun-fan-publications-by-year.pdf>

Version: 2024-04-24

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.

236
papers

5,651
citations

37
h-index

67
g-index

240
ext. papers

6,642
ext. citations

3.4
avg, IF

6.3
L-index

#	Paper	IF	Citations
236	Effect of Nucleant Particle Agglomeration on Grain Size. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2022 , 53, 810-822	2.3	0
235	Crystal Chemistry and Electronic Properties of the Al-Rich Compounds, Al ₂ Cu, Al ₇ Cu ₂ Fe and Al ₁₃ Fe ₄ with Cu Solution. <i>Metals</i> , 2022 , 12, 329	2.3	1
234	A New Atomistic Mechanism for Heterogeneous Nucleation in the Systems with Negative Lattice Misfit: Creating a 2D Template for Crystal Growth. <i>Metals</i> , 2021 , 11, 478	2.3	5
233	Effect of solutes on grain refinement. <i>Progress in Materials Science</i> , 2021 , 123, 100809	42.2	9
232	On the probabilistic nature of high-pressure die casting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 817, 141391	5.3	1
231	Turbulent breakup of non-metallic inclusions and equiaxed crystals during solidification of a hypoeutectic Al-Si alloy. <i>Materialia</i> , 2021 , 17, 101114	3.2	0
230	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
229	Enhancement of chip breakability of aluminium alloys by controlling the solidification during direct chill casting. <i>Journal of Alloys and Compounds</i> , 2021 , 862, 158008	5.7	2
228	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
227	Crystal chemistry and electronic structure of the AlFeSi phase from first-principles. <i>Journal of Solid State Chemistry</i> , 2021 , 299, 122199	3.3	3
226	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
225	In-situ microstructural control of A6082 alloy to modify second phase particles by melt conditioned direct chill (MC-DC) casting process: A novel approach. <i>Journal of Materials Processing Technology</i> , 2021 , 295, 117170	5.3	3
224	A novel approach to optimize mechanical properties for aluminium alloy in High pressure die casting (HPDC) process combining experiment and modelling. <i>Journal of Materials Processing Technology</i> , 2021 , 296, 117193	5.3	4
223	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
222	Interfacial interaction and prenucleation at liquid-Al/Al ₂ O ₃ {1 1 1} interfaces. <i>Journal of Physics Communications</i> , 2021 , 5, 015007	1.2	3
221	Si solution in Al ₁₃ Fe ₄ from first-principles. <i>Intermetallics</i> , 2020 , 126, 106939	3.5	4
220	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

219	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
218	Impeding Nucleation for More Significant Grain Refinement. <i>Scientific Reports</i> , 2020 , 10, 9448	4.9	11
217	Melt Conditioned Direct Chill (MC-DC) Casting and Extrusion of AA5754 Aluminium Alloy Formulated from Recycled Taint Tabor Scrap. <i>Materials</i> , 2020 , 13,	3.5	2
216	Heterogeneous Nucleation of Eutectic Structure in Al-Mg-Si Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020 , 51, 2697-2702	2.3	3
215	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
214	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
213	A molecular dynamics study of heterogeneous nucleation in generic liquid/substrate systems with positive lattice misfit. <i>Materials Research Express</i> , 2020 , 7, 126501	1.7	4
212	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
211	Pre-nucleation 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
210	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
209	Mechanism for Si Poisoning of Al-Ti-B Grain Refiners in Al Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020 , 51, 5743-5757	2.3	5
208	Numerical Assessment of In-Line Rotor/Stator Mixers in High-Shear Melt Conditioning (HSMC) Technology. <i>Jom</i> , 2020 , 72, 4092-4100	2.1	1
207	Fe-Rich Intermetallic Formation and Mechanical Properties of Recycled AA6111 Alloy Strips Produced by Melt Conditioning Twin Roll Casting. <i>Jom</i> , 2020 , 72, 3753-3759	2.1	3
206	Pre-nucleation 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
205	Numerical modelling of melt-conditioned direct-chill casting. <i>Applied Mathematical Modelling</i> , 2020 , 77, 1310-1330	4.5	9
204	Atomic ordering at the interfaces between liquid Al and solid MgO: An Ab Initio molecular dynamics study. <i>Philosophical Magazine Letters</i> , 2020 , 100, 235-244	1	2
203	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
202	Intrinsic defects in and electronic properties of Al ₁₃ Fe ₄ : an ab initio DFT study. <i>JPhys Materials</i> , 2019 , 2, 015004	4.2	4

201	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
200	Towards directly formable thin gauge AZ31 Mg alloy sheet production by melt conditioned twin roll casting. <i>Materials and Design</i> , 2019 , 179, 107887	8.1	4
199	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
198	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
197	Assessment of Self-Piercing Riveted Joints Using the Analytic Hierarchy Process. <i>Metals</i> , 2019 , 9, 760	2.3	
196	A novel route to the coupling of molecular dynamics and phase-field simulations of crystal growth. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 529, 012032	0.4	2
195	Segregation of Ca at the Mg/MgO interface and its effect on grain refinement of Mg alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 529, 012048	0.4	4
194	Solidification processing of scrap Al-alloys containing high levels of Fe. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019 , 529, 012059	0.4	4
193	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
192	Melt Conditioning Twin Roll Casting with Thermo-Mechanical Treatment of Recycled AA6111 Alloy. <i>Jom</i> , 2019 , 71, 1714-1721	2.1	4
191	Mechanism for Zr poisoning of Al-Ti-B based grain refiners. <i>Acta Materialia</i> , 2019 , 164, 428-439	8.4	56
190	Effective Degassing for Reduced Variability in High-Pressure Die Casting Performance. <i>Jom</i> , 2019 , 71, 824-830	2.1	7
189	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
188	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
187	Prenucleation Induced by Crystalline Substrates. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 2766-2777	2.3	24
186	A new concept for growth restriction during solidification. <i>Acta Materialia</i> , 2018 , 152, 248-257	8.4	23
185	An ab initio study on stacking and stability of TiAl ₃ phases. <i>Computational Materials Science</i> , 2018 , 153, 309-314	3.2	5
184	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

183	Advanced Casting Technologies Using High Shear Melt Conditioning 2018 , 249-277		2
182	Microstructure Evolution and Mechanical Properties of Thin Strip Twin Roll Cast (TRC) Mg Sheet. <i>Minerals, Metals and Materials Series</i> , 2018 , 429-432	0.3	
181	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
180	Atomic ordering in the liquid adjacent to an atomically rough solid surface. <i>Computational Materials Science</i> , 2018 , 153, 73-81	3.2	19
179	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
178	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
177	X-Ray Computed Tomographic Investigation of High Pressure Die Castings. <i>Minerals, Metals and Materials Series</i> , 2017 , 861-866	0.3	0
176	Microstructural Transition and Elevated Temperature Tensile Properties of Modified AlSiCuMg Alloys. <i>Minerals, Metals and Materials Series</i> , 2017 , 419-425	0.3	1
175	The Enhancement of Mechanical Properties of A356 Alloy Solidified at Lower Cooling Rate via Effectively Grain Refinement. <i>Minerals, Metals and Materials Series</i> , 2017 , 221-226	0.3	
174	Young's Modulus of AlSiMgCu Based Alloy Under Different Heat Treatment Processes. <i>Minerals, Metals and Materials Series</i> , 2017 , 335-342	0.3	
173	Crystallographic effects on the corrosion of twin roll cast AZ31 Mg alloy sheet. <i>Acta Materialia</i> , 2017 , 133, 90-99	8.4	55
172	Microstructure and mechanical properties of SnCu alloys for detonating and explosive cords. <i>Materials Science and Technology</i> , 2017 , 33, 1907-1918	1.5	4
171	Improvement of mechanical properties of Al-Si alloy with effective grain refinement by in-situ integrated Al ₂ Ti ₁ B-Mg refiner. <i>Journal of Alloys and Compounds</i> , 2017 , 710, 166-171	5.7	15
170	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
169	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
168	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
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	Grain Refinement of Mg and Its Alloy by Inoculation of In Situ MgO Particles. <i>Minerals, Metals and Materials Series</i> , 2017 , 99-106	0.3	1
164	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
163	The Scale-Up of High Shear Processing for the Purification of Recycled Molten Scrap Aluminium Alloy: Key Features of Fluid Flow. <i>Minerals, Metals and Materials Series</i> , 2017 , 1123-1129	0.3	1
162	Effect of Ultrasonic Processing on a Direct Chill Cast AA6082 Aluminium Alloy. <i>Minerals, Metals and Materials Series</i> , 2017 , 997-1003	0.3	2
161	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
160	A simple model for spherical growth in alloy solidification. <i>IOP Conference Series: Materials Science and Engineering</i> , 2016 , 117, 012016	0.4	0
159	Refinement of Primary Silicon Crystals by Novel Al-ZnS Master Alloy in Solidification of Hypereutectic Al-Si Alloys 2016 , 271-273		
158	Development of The New High Shear Technology For Continuous Processing of Mg-Alloys For Ingot Casting 2016 , 29-33		
157	Weibull Analysis for the Repeatability of Die Castings Made By an Al-Mg-Si-Mn Alloy 2016 , 679-685		
156	Effect of Iron in Al-Mg-Si-Mn Ductile Diecast Alloy. <i>Minerals, Metals and Materials Series</i> , 2016 , 317-322	0.3	1
155	Development of the New High Shear Technology for Continuous Processing of Mg-Alloys for Ingot Casting 2016 , 29-33		
154	Weibull Analysis for the Repeatability of Die Castings Made by an Al-Mg-Si-Mn Alloy 2016 , 681-685		0
153	A High Strength Aluminium Alloy for High Pressure Die Casting 2016 , 207-210		
152	The influence of iron level on corrosion of high-pressure die-cast LM24 alloy. <i>Metallurgical Research and Technology</i> , 2016 , 113, 604	0.9	
151	Mechanism of Zirconium Poisoning Effect on TiB ₂ Inoculation in Aluminium Alloys 2016 , 725-729		
150	Refinement of Primary Silicon Crystals by Novel Al-ZnS Master Alloy in Solidification of Hypereutectic Al-Si Alloys 2016 , 271-273		
149	Melt Protection of Mg-Al Based Alloys. <i>Metals</i> , 2016 , 6, 131	2.3	9
148	Grain Refinement of Deoxidized Copper. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016 , 47, 4988-5011	2.3	16

147	A High Strength Aluminium Alloy for High Pressure Die Casting 2016 , 207-210		1
146	Mechanism of Zirconium Poisoning Effect on TiB ₂ Inoculation in Aluminium Alloys 2016 , 725-729		2
145	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
144	Heterogeneous nucleation in Mg ₂ Zr alloy under die casting condition. <i>Materials Letters</i> , 2015 , 160, 263-267	5.7	16
143	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
142	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
141	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
140	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
139	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
138	Computational prediction of the refinement of oxide agglomerates in a physical conditioning process for molten aluminium alloy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015 , 84, 012092	0.4	3
137	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
136	Controlling the Formation of Iron-Bearing Intermetallics in Wrought Al Alloys by Melt Conditioned DC (MC-DC) Casting Technology. <i>Materials Science Forum</i> , 2015 , 828-829, 43-47	0.4	4
135	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
134	Development of New Oxide Based Master Alloys and their Grain Refinement Potency in Aluminium Alloys. <i>Materials Science Forum</i> , 2015 , 828-829, 23-28	0.4	1
133	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
132	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
131	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
130	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

129	Grain refinement of DHP copper by elemental additions. <i>International Journal of Cast Metals Research</i> , 2015 , 28, 248-256	1	7
128	Grain refinement of DHP copper by particle inoculation. <i>International Journal of Cast Metals Research</i> , 2015 , 28, 242-247	1	2
127	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
126	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
125	Structure-property analysis of in-situ AlMgAl ₂ O ₄ 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
124	Grain refining mechanism in the Al/AlTiB system. <i>Acta Materialia</i> , 2015 , 84, 292-304	8.4	295
123	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
122	Atomic ordering in liquid aluminium induced by substrates with misfits. <i>Computational Materials Science</i> , 2014 , 85, 1-7	3.2	29
121	Molecular dynamic simulation of the atomic structure of aluminum solid-liquid interfaces. <i>Materials Research Express</i> , 2014 , 1, 025705	1.7	5
120	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
119	Nanoparticles Distribution and Mechanical Properties of Aluminum-Matrix Nano-Composites Treated with External Fields 2014 , 1411-1415		3
118	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
117	Solution Heat Treatment, Forming and In-Die Quenching of a Commercial Sheet Magnesium Alloy into a Complex-Shaped Component: Experimentation and FE Simulation. <i>Key Engineering Materials</i> , 2014 , 622-623, 596-602	0.4	3
116	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
115	Processing of Metal Matrix Composites under External Fields and Their Application as Grain Refiner 2014 , 1401-1404		1
114	Surface oxidation of molten AZ91D magnesium alloy in air. <i>International Journal of Cast Metals Research</i> , 2014 , 27, 167-175	1	8
113	Microstructure Evolution in Melt Conditioned Direct Chill (MC-DC) Casting of Fe-Rich Al-Alloy. <i>Advanced Materials Research</i> , 2014 , 1019, 90-95	0.5	4
112	Processing of Metal Matrix Composites under External Fields and Their Application as Grain Refiner 2014 , 1401-1404		

111	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	2.3	39
110	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
109	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
108	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
107	Liquid Metal Engineering by Application of Intensive Melt Shearing 2013 , 289-299		2
106	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
105	Effect of Melt Intensive Homogenization on Solidification Microstructure of 7075 Aluminium Alloy by Twin-Screw Stirring. <i>Advanced Materials Research</i> , 2013 , 750-752, 771-775	0.5	
104	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
103	Improvement of Mechanical Properties of HPDC A356 Alloy through Melt Quenching Process 2013 , 271-276		
102	Application of External Fields to Technology of Metal-Matrix Composite Materials 2013 , 1037-1044		6
101	Liquid Metal Engineering by Application of Intensive Melt Shearing 2013 , 291-299		3
100	Improvement of Mechanical Properties of HPDC A356 Alloy through Melt Quenching Process 2013 , 273-276		
99	Fabrication of biodegradable nano-sized TiCP/Mg composite by a novel melt shearing technology. <i>Materials Science and Engineering C</i> , 2012 , 32, 1253-1258	8.3	39
98	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
97	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
96	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
95	Extruded microstructure of Zn-B wt-%Al eutectic alloy processed by twin screw extrusion. <i>Materials Science and Technology</i> , 2012 , 28, 1287-1294	1.5	4
94	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

93	Melt Conditioned Casting of Aluminum Alloys 2012 , 1395-1400		3
92	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
91	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
90	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
89	Reconstruction of 2D Al ₃ Ti on TiB ₂ in an aluminium melt. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012004	0.4	3
88	Mechanisms of enhanced heterogeneous nucleation during solidification in binary AlMg alloys. <i>Acta Materialia</i> , 2012 , 60, 1528-1537	8.4	136
87	Preliminary study of the characteristics of a high Mg containing Al-Mg-Si alloy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012050	0.4	
86	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
85	Microstructure control during twin roll casting of an AZ31 magnesium alloy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012065	0.4	2
84	Effect of intensive melt shearing on the formation of Fe-containing intermetallics in LM24 Al-alloy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012075	0.4	3
83	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
82	Enhanced heterogeneous nucleation on oxides in Al alloys by intensive shearing. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012047	0.4	4
81	Refinement of primary Si in hypereutectic Al-Si alloys by intensive melt shearing. <i>IOP Conference Series: Materials Science and Engineering</i> , 2012 , 27, 012042	0.4	4
80	Melt Conditioned Casting of Aluminum Alloys 2012 , 1395-1400		4
79	Melt Conditioned DC (MC-DC) Casting of Magnesium Alloys 2012 , 155-160		
78	Microstructural Evolution in Intensively Melt Sheared Direct Chill Cast Al-Alloys 2012 , 91-96		
77	Twin Roll Casting of Thin AZ31 Magnesium Alloy Strip with Uniform Microstructure and Chemistry 2012 , 135-140		1
76	Refining grain structure and porosity of an aluminium alloy with intensive melt shearing. <i>Scripta Materialia</i> , 2011 , 64, 209-212	5.6	51

75	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
74	Effects of solute content on grain refinement in an isothermal melt. <i>Acta Materialia</i> , 2011 , 59, 2704-2718	3.4	102
73	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
72	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
71	Characterisation of magnesium oxide and its interface with Mg in Mg-Al-based alloys. <i>Philosophical Magazine Letters</i> , 2011 , 91, 516-529	1	55
70	Microstructural evaluation of melt conditioned twin roll cast Al-Mg alloy. <i>Materials Science and Technology</i> , 2011 , 27, 1833-1839	1.5	28
69	Degassing of LM24 Al alloy by intensive melt shearing. <i>International Journal of Cast Metals Research</i> , 2011 , 24, 307-313	1	6
68	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
67	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
66	Shear Enhanced Heterogeneous Nucleation in AZ91D Alloy. <i>Materials Science Forum</i> , 2010 , 649, 301-306	0.4	1
65	Improvement in silicon morphology and mechanical properties of Al-7Si alloy by melt conditioning shear technology. <i>International Journal of Cast Metals Research</i> , 2010 , 23, 225-230	1	3
64	Refinement of Solidification Microstructures by the MCAST Process. <i>Materials Science Forum</i> , 2010 , 649, 315-323	0.4	1
63	Effect of intensive shearing on morphology of primary silicon and properties of hypereutectic Al-Si alloy. <i>Materials Science and Technology</i> , 2010 , 26, 975-980	1.5	7
62	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
61	Microstructure and mechanical properties of melt-conditioned high-pressure die-cast Mg-Al-Ca alloy. <i>Transactions of Nonferrous Metals Society of China</i> , 2010 , 20, 1205-1211	3.3	5
60	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
59	Rheo-diecasting of AZ91D magnesium alloy. <i>Rare Metals</i> , 2010 , 29, 542-546	5.5	5
58	Melt-Conditioned, High-Pressure Die Casting of Mg-Al-Zn Alloy. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2010 , 41, 209-213	2.5	4

57	Microstructural refinement of Al0.2%Si alloy by intensive shearing. <i>Materials Letters</i> , 2010 , 64, 671-673	3.3	21
56	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
55	Mechanisms of grain refinement by intensive shearing of AZ91 alloy melt. <i>Acta Materialia</i> , 2010 , 58, 6526-6534	6.4	103
54	Shear enhanced heterogeneous nucleation in some Mg- and Al-alloys. <i>International Journal of Cast Metals Research</i> , 2009 , 22, 318-322	1	41
53	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
52	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
51	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
50	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
49	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
48	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
47	Enhanced heterogeneous nucleation in AZ91D alloy by intensive melt shearing. <i>Acta Materialia</i> , 2009 , 57, 4891-4901	8.4	194
46	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
45	Processing of advanced Al/SiC particulate metal matrix composites under intensive shearing [A novel Rheo-process. <i>Composites Part A: Applied Science and Manufacturing</i> , 2009 , 40, 144-151	8.4	127
44	Twin Roll Casting and Melt Conditioned Twin-Roll Casting of Magnesium. <i>Solid State Phenomena</i> , 2008 , 141-143, 195-200	0.4	6
43	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
42	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
41	Secondary solidification behaviour of the AlSiMg alloy prepared by the rheo-diecasting process. <i>Acta Materialia</i> , 2007 , 55, 1589-1598	8.4	70
40	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

39	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
38	The effects of rheo-diecasting on the integrity and mechanical properties of Mg β Al β Zn. <i>Scripta Materialia</i> , 2006 , 54, 207-211	5.6	24
37	Rheo-diecasting of Al β Si β Bb immiscible alloys. <i>Scripta Materialia</i> , 2006 , 54, 789-793	5.6	21
36	Isothermal coarsening of fine and spherical particles in semisolid slurry of Mg β Al β Zn alloy under low shear. <i>Scripta Materialia</i> , 2006 , 55, 971-974	5.6	28
35	Direct chill rheocasting (DCRC) of AZ31 Mg alloy. <i>Materials Science and Technology</i> , 2006 , 22, 1489-1498	1.5	10
34	Microstructure and Mechanical Properties of Fe-Containing Al-Alloys Processed by a Rheo-Diecasting Process. <i>Materials Science Forum</i> , 2006 , 519-521, 1251-1256	0.4	
33	Microstructural evolution of rheo-diecast AZ91D magnesium alloy during heat treatment. <i>Acta Materialia</i> , 2006 , 54, 689-699	8.4	112
32	Investigation on the microstructural refinement of an Mg β wt.% Zn alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2006 , 419, 349-356	5.3	32
31	Numerical analysis of the hydrodynamic behaviour of immiscible metallic alloys in twin-screw rheomixing process. <i>Materials & Design</i> , 2006 , 27, 1065-1075		4
30	Microstructure and mechanical properties of rheo-diecast AZ91D magnesium alloy. <i>Journal of Materials Science</i> , 2006 , 41, 3631-3644	4.3	53
29	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
28	Microstructure and Mechanical Properties of a Rheo-Diecast Mg β 10Zn β 4.5Al Alloy. <i>Materials Transactions</i> , 2005 , 46, 2221-2228	1.3	18
27	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
26	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
25	Solidification behaviour of AZ91D alloy under intensive forced convection in the RDC process. <i>Acta Materialia</i> , 2005 , 53, 4345-4357	8.4	106
24	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
23	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
22	Development of the Rheo-Diecasting Process for Mg-Alloys. <i>Materials Science Forum</i> , 2005 , 488-489, 405-412	0.4	14

21	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
20	Tracking of immiscible interfaces in multiple-material mixing processes. <i>Computational Materials Science</i> , 2004 , 29, 103-118	3.2	24
19	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
18	Morphological development of solidification structures under forced fluid flow: experimental observation. <i>Materials Science and Technology</i> , 2003 , 19, 573-580	1.5	10
17	Solidification behavior of the remnant liquid in the sheared semisolid slurry of Sn-5 wt.%Pb alloy. <i>Scripta Materialia</i> , 2002 , 46, 205-210	5.6	17
16	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
15	Morphological development of solidification structures under forced fluid flow: a Monte-Carlo simulation. <i>Acta Materialia</i> , 2002 , 50, 4571-4585	8.4	69
14	Modelling of rheological behaviour of semisolid metal slurries Part 1 Theory. <i>Materials Science and Technology</i> , 2002 , 18, 237-242	1.5	43
13	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
12	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
11	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
10	Semisolid metal processing. <i>International Materials Reviews</i> , 2002 , 47, 49-85	16.1	707
9	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
8	Immiscible systems produced by squeeze casting of engineered metallic foams. <i>Journal of Materials Science Letters</i> , 2001 , 20, 1769-1771		2
7	Processing of immiscible metallic alloys by rheomixing process. <i>Materials Science and Technology</i> , 2001 , 17, 837-842	1.5	19
6	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
5	A generalized law of mixtures. <i>Journal of Materials Science</i> , 1994 , 29, 141-150	4.3	68
4	Twin Roll Casting of Thin AZ31 Magnesium Alloy Strip with Uniform Microstructure and Chemistry	133-140	

- 3 Melt Conditioned DC (MC-DC) Casting of Magnesium Alloys 155-160 1
- 2 Microstructural Evolution in Intensive Melt Sheared Direct Chill Cast Al-Alloys 91-96 3
- 1 Atomic Ordering at the Interfaces Between Liquid Aluminum and Polar AlN{0 0 1} Substrates.
Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1 2.3