Mohammad Jahazi

List of Publications by Citations

189 papers	5,464 citations	38 h-index	69 g-index
196 ext. papers	6,182 ext. citations	3.5 avg, IF	6.05 L-index

#	Paper	IF	Citations
189	A review of laser welding techniques for magnesium alloys. *Journal of Materials Processing Technology*, **2006**, 171, 188-204	5.3	414
188	Strain hardening behavior of a friction stir welded magnesium alloy. *Scripta Materialia*, **2007**, 57, 1004-1007	3.6	291
187	Microstructure and tensile properties of friction stir welded AZ31B magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 472, 179-186	5.3	268
186	Linear friction welding of Ti-6Al-4V: Processing, microstructure, and mechanical-property inter-relationships. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2005**, 36, 2149-2164	2.3	190
185	Hot working behavior of near-α alloy IMI834. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 396, 50-60	5.3	177
184	Effect of welding speed on butt joint quality of Ti–6Al–4V alloy welded using a high-power Nd:YAG laser. *Optics and Lasers in Engineering*, **2009**, 47, 1231-1241	4.6	154
183	Effect of tool rotational speed and probe length on lap joint quality of a friction stir welded magnesium alloy. *Materials & Design*, **2011**, 32, 1-11		141
182	Structure, Texture and Phases in 3D Printed IN718 Alloy Subjected to Homogenization and HIP Treatments. *Metals*, **2017**, 7, 196	2.3	135
181	Analysis of sharp microtexture heterogeneities in a bimodal IMI 834 billet. *Acta Materialia*, **2005**, 53, 3535-3543	8.4	126
180	Process optimisation and mechanical properties of friction stir lap welds of 7075-T6 stringers on 2024-T3 skin. *Materials & Design*, **2010**, 31, 3324-3330		122
179	Microstructural characteristics of forged and heat treated Inconel-718 disks. *Materials & Design*, **2013**, 52, 791-800		119
178	Deformation characteristics of isothermally forged UDIMET 720 nickel-base superalloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2005**, 36, 895-905	2.3	118
177	Texture heterogeneities induced by subtransus processing of near-α titanium alloys. *Acta Materialia*, **2008**, 56, 4298-4308	8.4	114
176	The influence of heat treatment conditions on γ′ characteristics in Udimet® 720. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2004**, 373, 286-293	5.3	105
175	Effect of pre- and post-weld heat treatment on metallurgical and tensile properties of Inconel 718 alloy butt joints welded using 4 kW Nd:YAG laser. *Journal of Materials Science*, **2009**, 44, 4557-4571	4.3	96
174	Coarsening and dissolution of γ′ precipitates during solution treatment of AD730™ Ni-based superalloy: Mechanisms and kinetics models. *Journal of Alloys and Compounds*, **2016**, 658, 981-995	5.7	92
173	Influence of thermomechanical processing on microstructural evolution in near-α alloy IMI834. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 416, 300-311	5.3	91

172	Polishing-assisted galvanic corrosion in the dissimilar friction stir welded joint of AZ31 magnesium alloy to 2024 aluminum alloy. *Materials Characterization*, **2009**, 60, 370-376	3.9	85
171	Flow stress prediction during hot working of near-β titanium alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2007**, 447, 99-110	5.3	85
170	Microstructure evolution at the onset of discontinuous dynamic recrystallization: A physics-based model of subgrain critical size. *Journal of Alloys and Compounds*, **2014**, 587, 199-210	5.7	81
169	Influence of tool geometry and rotational speed on mechanical properties and defect formation in friction stir lap welded 5456 aluminum alloy sheets. *Materials & Design*, **2014**, 58, 381-389		80
168	The non-equilibrium segregation of boron on original and moving austenite grain boundaries. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2002**, 335, 49-61	5.3	76
167	On material flow in Friction Stir Welded Al alloys. *Journal of Materials Processing Technology*, **2017**, 239, 284-296	5.3	70
166	The influence of hot forging conditions on the microstructure and mechanical properties of two microalloyed steels. *Journal of Materials Processing Technology*, **2001**, 113, 594-598	5.3	67
165	A Review on Inertia and Linear Friction Welding of Ni-Based Superalloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 1639-1669	2.3	66
164	Study of the variant selection in sharp textured regions of bimodal IMI 834 billet. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 430, 157-164	5.3	66
163	Microstructural characteristics and tensile behavior of medium manganese steels with different manganese additions. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 729, 496-507	5.3	61
162	Microstructural evolution during transient liquid phase bonding of Inconel 617 using Ni-Si-B filler metal. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 423, 269-281	5.3	60
161	Multi-Scale Analysis of IN-718 Microstructure Evolution During Linear Friction Welding. *Advanced Engineering Materials*, **2008**, 10, 573-578	3.5	57
160	Mechanical Property and Microstructure of Linear Friction Welded WASPALOY. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2011**, 42, 729-744	2.3	55
159	Kinetics and Mechanisms of δ Reprecipitation in a Ni-based Superalloy. *Scientific Reports*, **2016**, 6, 28650	4.9	51
158	The influence of flow-forming parameters and microstructure on the quality of a D6ac steel. *Journal of Materials Processing Technology*, **2000**, 103, 362-366	5.3	49
157	Formation of Widmanstätten ferrite at very high temperatures in the austenite phase field. *Acta Materialia*, **2016**, 109, 23-31	8.4	41
156	Continuous Wave ND:YAG Laser Welding of Sand-Cast ZE41A-T5 Magnesium Alloys. *Materials and Manufacturing Processes*, **2005**, 20, 987-1004	4.1	41
155	Nd:YAG laser welding of aerospace grade ZE41A magnesium alloy: Modeling and experimental investigations. *Materials Chemistry and Physics*, **2008**, 109, 61-76	4.4	40

154	The influence of hot rolling parameters on the microstructure and mechanical properties of an ultra-high strength steel. *Journal of Materials Processing Technology*, **2000**, 103, 276-279	5.3	40
153	Substructure of high temperature compressed titanium alloy IMI 834. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 434, 188-193	5.3	39
152	Maximizing the integrity of linear friction welded Waspaloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 555, 117-130	5.3	38
151	Optimization of Processing Parameters During Laser Cladding of ZE41A-T5 Magnesium Alloy Castings Using Taguchi Method. *Materials and Manufacturing Processes*, **2008**, 23, 413-418	4.1	37
150	Evolution of flow stress and microstructure during isothermal compression of Waspaloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2014**, 615, 497-510	5.3	36
149	Cracking in fusion zone and heat affected zone of electron beam welded Inconel-713LC gas turbine blades. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 642, 230-240	5.3	32
148	Linear Friction Welding of IN-718 Process Optimization and Microstructure Evolution. *Advanced Materials Research*, **2006**, 15-17, 357-362	0.5	32
147	Banded structures in friction stir welded Al alloys. *Journal of Materials Processing Technology*, **2015**, 221, 269-278	5.3	31
146	Tool Wear Characteristics and Effect on Microstructure in Ti-6Al-4V Friction Stir Welded Joints. *Metals*, **2016**, 6, 275	2.3	30
145	The effect of heating rate on microstructure and texture formation during annealing of heavily cold-rolled equiatomic CoCrFeMnNi high entropy alloy. *Journal of Alloys and Compounds*, **2016**, 688, 752-761	5.7	28
144	An automated method to analyze separately the microtextures of primary β grains and the secondary β inherited colonies in bimodal titanium alloys. *Materials Characterization*, **2005**, 54, 216-222	3.9	28
143	Microstructure and mechanical properties of surface and subsurface layers in broached and shot-peened Inconel-718 gas turbine disc fir-trees. *Materials Characterization*, **2017**, 132, 53-68	3.9	27
142	Local mechanical properties, microstructure, and microtexture in friction stir welded Ti-6Al-4V alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 749, 166-175	5.3	26
141	Effect of tool geometry and welding speed on mechanical properties of dissimilar AA2198–AA2024 FSWed joint. *Journal of Manufacturing Processes*, **2018**, 34, 86-95	5	26
140	Numerical analysis of the dwell phase in friction stir welding and comparison with experimental data. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2010**, 527, 4152-4160	5.3	26
139	The effect of SiC/Al2O3 particles used during FSP on mechanical properties of AZ91 magnesium alloy. *International Journal of Materials Research*, **2014**, 105, 369-374	0.5	25
138	Simultaneous enhancement of strength and ductility in cryogenically treated AISI D2 tool steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2014**, 598, 413-419	5.3	24
137	Microstructural and Microhardness Evolution from Homogenization and Hot Isostatic Pressing on Selective Laser Melted Inconel 718: Structure, Texture, and Phases. *Journal of Manufacturing and Materials Processing*, **2018**, 2, 30	2.2	23

136	Dynamic Recrystallization and Precipitation in 13Cr Super-Martensitic Stainless Steels. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2014**, 45, 2219-2231	2.3	23
135	High temperature deformation of nickel base superalloy Udimet 520. *Materials Science and Technology*, **2004**, 20, 161-166	1.5	23
134	Strain induced precipitation in nickel base superalloy Udimet 720 using a stress relaxation based technique. *Scripta Materialia*, **2005**, 52, 771-776	5.6	23
133	Modeling Grain Size and Strain Rate in Linear Friction Welded Waspaloy. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2013**, 44, 4230-4238	2.3	22
132	Dissolution and precipitation kinetics of in nickel base superalloy Udimet 520. *Materials Science and Technology*, **2002**, 18, 458-462	1.5	22
131	Dynamic recrystallization in Monel400 Ni-Cu alloy: Mechanism and role of twinning. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2019**, 744, 376-385	5.3	22
130	Influence of Homogenization and Solution Treatments Time on the Microstructure and Hardness of Inconel 718 Fabricated by Laser Powder Bed Fusion Process. *Materials*, **2020**, 13,	3.5	21
129	Microstructural Evaluation of Friction Stir Processed AZ31B-H24 Magnesium Alloy. *Canadian Metallurgical Quarterly*, **2007**, 46, 425-432	0.9	21
128	In Situ Study of Phase Transformations during Non-Isothermal Tempering of Bainitic and Martensitic Microstructures. *Metals*, **2017**, 7, 346	2.3	20
127	Ti Al V electron beam weld qualification using laser scanning confocal microscopy. *Materials Characterization*, **2005**, 54, 254-262	3.9	20
126	Linear friction welding of Al Cu Part 2 Interfacial characteristics. *Canadian Metallurgical Quarterly*, **2011**, 50, 360-370	0.9	19
125	Thin Gauge Titanium Manufacturing Using Multiple-Pass Electron Beam Welding. *Materials and Manufacturing Processes*, **2006**, 21, 439-451	4.1	19
124	Determination of the critical stress for the initiation of dynamic transformation in commercially pure titanium. *Scripta Materialia*, **2017**, 133, 83-85	5.6	18
123	Predicting residual stresses and distortion during multisequence welding of large size structures using FEM. *International Journal of Advanced Manufacturing Technology*, **2014**, 73, 409-419	3.2	18
122	Linear friction welding of AD730 Ni-base superalloy: Process-microstructure-property interactions. *Materials and Design*, **2019**, 183, 108117	8.1	17
121	Analysis of integrity and microstructure of linear friction welded Waspaloy. *Materials Characterization*, **2015**, 104, 149-161	3.9	17
120	Hot compression behavior and microstructure of selectively laser-melted IN718 alloy. *International Journal of Advanced Manufacturing Technology*, **2018**, 96, 371	3.2	17
119	Alternative phase transformation path in cryogenically treated AISI D2 tool steel. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2015**, 634, 32-36	5.3	16

118	Influence of prior cold deformation on microstructure evolution of AISI D2 tool steel after hardening heat treatment. *Journal of Manufacturing Processes*, **2016**, 22, 115-119	5	16
117	Design and optimisation of a phased array transducer for ultrasonic inspection of large forged steel ingots. *NDT and E International*, **2019**, 103, 119-129	4.1	15
116	An investigation to the effect of deformation-heat treatment cycle on the eutectic morphology and mechanical properties of a Thixocast A356 alloy. *Materials Characterization*, **2009**, 60, 817-823	3.9	15
115	Twin-assisted precipitation during hot compression of an Mg-Gd-Zn-Zr magnesium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 706, 142-152	5.3	15
114	On the Occurrence of Liquation During Linear Friction Welding of Ni-Based Superalloys. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2017**, 48, 2886-2899	2.3	14
113	Characteristics of Austenite Transformation During Post Forge Cooling of Large-Size High Strength Steel Ingots. *Metallography, Microstructure, and Analysis*, **2014**, 3, 281-297	1.1	14
112	On the impacts of tool geometry and cutting conditions in straight turning of aluminum alloys 6061-T6: an experimentally validated numerical study. *International Journal of Advanced Manufacturing Technology*, **2020**, 106, 4547-4565	3.2	13
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109	Optimization of bead spacing during laser cladding of ZE41A-T5 magnesium alloy castings. *Journal of Materials Processing Technology*, **2008**, 205, 322-331	5.3	13
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107	Dissolution kinetics and morphological changes of□in AD730TMsuperalloy. *MATEC Web of Conferences*, **2014**, 14, 13005	0.3	12
106	Investigation of □platelet boundaries in a near-□titanium alloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 492, 450-454	5.3	12
105	The Determination of Optimum Forging Conditions for the Production of High Strength-High Impact Toughness Automotive Parts. *Materials and Manufacturing Processes*, **2006**, 21, 105-110	4.1	12
104	Examination and verification of the filtration mechanism of cake mode during the pressure filtration tests of liquid Al□i cast alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2005**, 408, 234-242	5.3	12
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102	On the hot cracking of HSLA steel welds: Role of epitaxial growth and HAZ grain size. *Journal of Manufacturing Processes*, **2019**, 41, 242-251	5	11
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100	Friction stir lap welding of 5456 aluminum alloy with different sheet thickness: process optimization and microstructure evolution. *International Journal of Advanced Manufacturing Technology*, **2016**, 82, 39-48	3.2	11
99	The development of an optimum manufacturing and material selection process for the fabrication of labyrinth seal strips. *Journal of Materials Processing Technology*, **2004**, 152, 272-275	5.3	11
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97	Cold spray deposition characteristic and bonding of CrMnCoFeNi high entropy alloy. *Surface and Coatings Technology*, **2021**, 425, 127748	4.4	11
96	Experimental and unsteady CFD analyses of the heating process of large size forgings in a gas-fired furnace. *Case Studies in Thermal Engineering*, **2019**, 14, 100428	5.6	10
95	Precipitation behaviour and mechanical properties of a new wrought high entropy superalloy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing* , **2019**, 749, 271-280	5.3	10
94	Martensitic transformation in AISI D2 tool steel during continuous cooling to 173 K. *Journal of Materials Science*, **2015**, 50, 5758-5768	4.3	10
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92	Influence of strain rate on dynamic transformation of austenite in an as-cast medium-carbon low-alloy steel. *Materialia*, **2018**, 1, 155-167	3.2	10
91	The role of ausforming in the stability of retained austenite in a medium-C carbide-free bainitic steel. *Journal of Materials Research and Technology*, **2020**, 9, 7762-7776	5.5	9
90	Accurate determination of damaged subsurface layers in machined Inconel 718. *International Journal of Advanced Manufacturing Technology*, **2017**, 88, 3419-3427	3.2	9
89	Effect of turning environments and parameters on surface integrity of AA6061-T6: experimental analysis, predictive modeling, and multi-criteria optimization. *International Journal of Advanced Manufacturing Technology*, **2020**, 110, 2669-2683	3.2	9
88	Retained Austenite Decomposition and Carbide Precipitation during Isothermal Tempering of a Medium-Carbon Low-Alloy Bainitic Steel. *Materials*, **2018**, 11,	3.5	9
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85	Influence of cryogenic process parameters on microstructure and hardness evolution of AISI D2 tool steel. *International Journal of Advanced Manufacturing Technology*, **2016**, 85, 881-890	3.2	8
84	Electron beam freeforming on type 321 stainless steel using BNi-2 brazing paste. *Materials Science and Technology*, **2005**, 21, 613-618	1.5	8
83	Influence of thermomechanical shrinkage on macrosegregation during solidification of a large-sized high-strength steel ingot. *International Journal of Advanced Manufacturing Technology*, **2018**, 99, 3035-3048	3.2	8

82	Prediction of heat transfer coefficient during quenching of large size forged blocks using modeling and experimental validation. *Case Studies in Thermal Engineering*, **2019**, 13, 100379	5.6	7
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80	Determination of the Critical Stress Associated with Dynamic Phase Transformation in Steels by Means of Free Energy Method. *Metals*, **2018**, 8, 360	2.3	7
79	Formation of precipitates in parallel arrays on LPSO structures during hot deformation of GZ41K magnesium alloy. *Materials Characterization*, **2017**, 131, 234-243	3.9	7
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76	On the Effect of Filling Rate on Positive Macrosegregation Patterns in Large Size Cast Steel Ingots. *Applied Sciences (Switzerland)*, **2018**, 8, 1878	2.6	7
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74	Characterization of Subsurface Microstructural Alterations Induced by Hard Turning of Inconel 718. *Journal of Materials Engineering and Performance*, **2019**, 28, 7016-7024	1.6	6
73	Discrepancy between fatigue and dwell-fatigue behavior of near alpha titanium alloys simulated by cellular automata. *International Journal of Fatigue*, **2013**, 51, 49-56	5	6
72	The influence of thermochemical treatments on interface quality and properties of copper/carbon-fibre composites. *Composites Science and Technology*, **1999**, 59, 1969-1975	8.6	6
71	Grain size and misorientation evolution in linear friction welding of additively manufactured IN718 to forged superalloy AD730*Materials Characterization*, **2021**, 171, 110766	3.9	6
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69	Influence of predeformation on microstructure evolution of superplastically formed Al 5083 alloy. *International Journal of Advanced Manufacturing Technology*, **2017**, 88, 2929-2937	3.2	5
68	On the Role of Chromium in Dynamic Transformation of Austenite. *Metals and Materials International*, **2019**, 25, 559-569	2.4	5
67	Simulation and experimental validation of the effect of superheat on macrosegregation in large-size steel ingots. *International Journal of Advanced Manufacturing Technology*, **2020**, 107, 167-175	3.2	5
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61	Characterization of Electron Beam Welded 17-4 PH Stainless Steel. *Canadian Metallurgical Quarterly*, **2008**, 47, 413-435	0.9	5
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59	Modeling of the microstructure alteration induced by hard turning of Inconel 718. *International Journal of Advanced Manufacturing Technology*, **2017**, 93, 3705-3712	3.2	5
58	FEM modeling and experimental validation of quench-induced distortions of large size steel forgings. *Journal of Manufacturing Processes*, **2020**, 58, 592-605	5	5
57	Effect of heat treatments on microstructural and mechanical characteristics of dissimilar friction stir welded 2198/2024 aluminum alloys. *Journal of Adhesion Science and Technology*,1-19	2	5
56	Development and Microstructural Characterization of a New Wrought High Entropy Superalloy. *Metals and Materials International*, **2020**, 26, 591-602	2.4	5
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51	Assessing Microstructure-Local Mechanical Properties in Friction Stir Welded 6082-T6 Aluminum Alloy. *Metals*, **2020**, 10, 1244	2.3	4
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46	Analysis of Void Closure during Open Die Forging Process of Large Size Steel Ingots. *Key Engineering Materials*, **2016**, 716, 579-585	0.4	4
45	Finite Element Simulation of High-Speed Blow Forming of an Automotive Component. *Metals*, **2018**, 8, 901	2.3	4
44	Application of Shear Punch Testing to Study Microstructure-Property Relationships in Electron Beam Welded 17-4 PH Stainless Steel. *Canadian Metallurgical Quarterly*, **2009**, 48, 317-326	0.9	3
43	The influence of thermomechanical treatment on the microstructure and mechanical properties of aisi 4130 steel. *Metals and Materials International*, **1998**, 4, 818-822		3
42	Influence of Nickel on High-Temperature Oxidation and Characteristics of Oxide Layers in Two High-Strength Steels. *Steel Research International*, **2020**, 91, 1900536	1.6	3
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36	Phased array inspection of large size forged steel parts **2018**,		2
35	Influence of initial microstructure and grain size on transformation of bainite to austenite in large size forgings. *Journal of Iron and Steel Research International*, **2018**, 25, 554-562	1.2	2
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