Rajiv S. Mishra

List of Publications by Year
in descending order

535 papers	29,672 citations	9264 74 h-index	7950 149 g-index
603 all docs	603 docs citations	603 times ranked	11107 citing authors

#	Article	IF	Citations
1	Friction stir welding and processing. Materials Science and Engineering Reports, 2005, 50, 1-78.	31.8	5,241
2	Friction stir processing: a novel technique for fabrication of surface composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 341, 307-310.	5.6	904
3	Microstructural investigation of friction stir welded 7050-T651 aluminium. Acta Materialia, 2003, 51, 713-729.	7.9	894
4	High strain rate superplasticity in a friction stir processed 7075 Al alloy. Scripta Materialia, 1999, 42, 163-168.	5.2	734
5	Additive manufacturing of metals: a brief review of the characteristic microstructures and properties of steels, Ti-6Al-4V and high-entropy alloys. Science and Technology of Advanced Materials, 2017, 18, 584-610.	6.1	660
6	Low-temperature superplasticity in nanostructured nickel and metal alloys. Nature, 1999, 398, 684-686.	27.8	589
7	Superplastic deformation behaviour of friction stir processed 7075Al alloy. Acta Materialia, 2002, 50, 4419-4430.	7.9	387
8	Effects of grain size on the corrosion resistance of wrought magnesium alloys containing neodymium. Corrosion Science, 2012, 58, 145-151.	6.6	380
9	Influence of grain size and texture on Hallâ€"Petch relationship for a magnesium alloy. Scripta Materialia, 2011, 65, 994-997.	5.2	343
10	Structureâ€"property correlations in Al 7050 and Al 7055 high-strength aluminum alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 478, 163-172.	5.6	324
11	Superplasticity in powder metallurgy aluminum alloys and composites. Acta Metallurgica Et Materialia, 1995, 43, 877-891.	1.8	252
12	Friction stir processing: a tool to homogenize nanocomposite aluminum alloys. Scripta Materialia, 2001, 44, 61-66.	5.2	239
13	Steady state creep behaviour of silicon carbide particulate reinforced aluminium composites. Acta Metallurgica Et Materialia, 1992, 40, 2045-2052.	1.8	236
14	Friction Stir Processing: A New Grain Refinement Technique to Achieve High Strain Rate Superplasticity in Commercial Alloys. Materials Science Forum, 2001, 357-359, 507-514.	0.3	235
15	High strain-rate compressive deformation behavior of the Al0.1CrFeCoNi high entropy alloy. Materials and Design, 2015, 86, 598-602.	7.0	223
16	High strain rate superplasticity in a commercial 2024 Al alloy via friction stir processing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 359, 290-296.	5.6	220
17	Friction stir additive manufacturing for high structural performance through microstructural control in an Mg based WE43 alloy. Materials & Design, 2015, 65, 934-952.	5.1	200
18	Extreme creep resistance in a microstructurally stable nanocrystalline alloy. Nature, 2016, 537, 378-381.	27.8	199

#	Article	IF	Citations
19	Effect of friction stir processing on fatigue behavior of A356 alloy. Scripta Materialia, 2004, 51, 237-241.	5.2	198
20	Strengthening mechanisms in Tiâ€“Nbâ€“Zrâ€“Ta and Tiâ€“Moâ€“Zrâ€“Fe orthopaedic alloys. Biomaterials, 2004, 25, 3413-3419.	11.4	193
21	Microstructural modification of as-cast Al-Si-Mg alloy by friction stir processing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2006, 37, 3323-3336.	2.2	181
22	Effect of friction stir processing on the microstructure of cast A356 aluminum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 433, 269-278.	5.6	180
23	Low temperature superplasticity in a friction-stir-processed ultrafine grained Alâ€“Znâ€“Mgâ€“Sc alloy. Acta Materialia, 2005, 53, 4211-4223.	7.9	171
24	Modifying transformation pathways in high entropy alloys or complex concentrated alloys via thermo-mechanical processing. Acta Materialia, 2018, 153, 169-185.	7.9	169
25	Effect of multiple-pass friction stir processing on microstructure and tensile properties of a cast aluminumâ€“silicon alloy. Scripta Materialia, 2006, 54, 1623-1626.	5.2	163
26	Enhancing strength and strain hardenability via deformation twinning in fcc-based high entropy alloys reinforced with intermetallic compounds. Acta Materialia, 2019, 165, 420-430.	7.9	155
27	Abnormal grain growth in friction stir processed alloys. Scripta Materialia, 2008, 58, 367-371.	5.2	148
28	Corrosion-resistant high entropy alloy with high strength and ductility. Scripta Materialia, 2019, 166, 168-172.	5.2	148
29	Mechanical behavior and superplasticity of a severe plastic deformation processed nanocrystalline Tiâ€“6Alâ€“4V alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 298, 44-50.	5.6	143
30	Corrosion behavior of a friction stir processed rare-earth added magnesium alloy. Corrosion Science, 2012, 58, 321-326.	6.6	143
31	Multiple passes of friction stir processing for the creation of superplastic 7075 aluminum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 464, 255-260.	5.6	139
32	Tensile yield strength of a single bulk Al0.3CoCrFeNi high entropy alloy can be tuned from 160â€¯MPa to 1800â€¯MPa. Scripta Materialia, 2019, 162, 18-23.	5.2	138
33	Superplastic deformation mechanism of an ultrafine-grained aluminum alloy produced by friction stir processing. Acta Materialia, 2010, 58, 4693-4704.	7.9	135
34	Effect of tool design and process parameters on properties of Al alloy 6016 friction stir spot welds. Journal of Materials Processing Technology, 2011, 211, 972-977.	6.3	133
35	Superplasticity in cast A356 induced via friction stir processing. Scripta Materialia, 2004, 50, 931-935.	5.2	131
36	Enhanced strength and ductility in a friction stir processing engineered dual phase high entropy alloy. Scientific Reports, 2017, 7, 16167.	3.3	127

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37	Influence of fraction of high angle boundaries on the mechanical behavior of an ultrafine grained Alâ€"Mg alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 5246-5254.	5.6	126
38	High strain rate superplasticity in friction stir processed Alâ€"Mgâ€"Zr alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 351, 148-153.	5.6	124
39	Effect of texture on the mechanical behavior of ultrafine grained magnesium alloy. Scripta Materialia, 2011, 64, 580-583.	5.2	119
40	Understanding effect of 3.5Âwt.% NaCl on the corrosion of Al0.1CoCrFeNi high-entropy alloy. Journal of Nuclear Materials, 2017, 495, 154-163.	2.7	117
41	High-Pressure Sintering of Nanocrystalline gammaAl2O3. Journal of the American Ceramic Society, 1996, 79, 2989-2992.	3.8	115
42	Development of ultrafine-grained microstructure and low temperature (0.48 Tm) superplasticity in friction stir processed Alâ€"Mgâ€"Zr. Scripta Materialia, 2005, 53, 75-80.	5.2	111
43	Grain size and texture effects on deformation behavior of AZ31 magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 558, 716-724.	5.6	111
44	A State-of-the-Art Review on Solid-State Metal Joining. Journal of Manufacturing Science and Engineering, Transactions of the ASME, 2019, 141, .	2.2	111
45	Multi-sheet structures in 7475 aluminum by friction stir welding in concert with post-weld superplastic forming. Scripta Materialia, 2002, 47, 631-636.	5.2	108
46	Properties of friction stir-processed Al 1100â€"NiTi composite. Scripta Materialia, 2007, 56, 541-544.	5.2	107
47	Effect of Microstructure on the Deformation Mechanism of Friction Stir-Processed Al_{0.1}CoCrFeNi High Entropy Alloy. Materials Research Letters, 2015, 3, 30-34.	8.7	104
48	Analysis of microstructural evolution during friction stir welding of ultrahigh-strength steel. Scripta Materialia, 2010, 63, 851-854.	5.2	103
49	Friction Stir Additive Manufacturing: Route to High Structural Performance. Jom, 2015, 67, 616-621.	1.9	103
50	Hierarchical features infused heterogeneous grain structure for extraordinary strength-ductility synergy. Materials Research Letters, 2018, 6, 676-682.	8.7	103
51	Hierarchical microstructure for improved fatigue properties in a eutectic high entropy alloy. Scripta Materialia, 2018, 156, 105-109.	5.2	103
52	Fatigue behavior of ultrafine grained triplex Al0.3CoCrFeNi high entropy alloy. Scripta Materialia, 2019, 158, 116-120.	5.2	101
53	Some observations on the high-temperature creep behavior of 6061 Al-SiC composites. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1990, 21, 2089-2090.	1.4	100
54	Mechanism of high strain rate superplasticity in aluminium alloy composites. Acta Materialia, 1997, 45, 561-568.	7.9	98

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55	High-strain-rate superplasticity from nanocrystalline Al alloy 1420 at low temperatures. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 37-48.	0.6	97
56	Contrasting mechanical behavior in precipitation hardenable AlXCoCrFeNi high entropy alloy microstructures: Single phase FCC vs. dual phase FCC-BCC. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 739, 158-166.	5.6	97
57	Extremely high strength and work hardening ability in a metastable high entropy alloy. Scientific Reports, 2018, 8, 9920.	3.3	96
58	Additive friction stir deposition: a deformation processing route to metal additive manufacturing. Materials Research Letters, 2021, 9, 71-83.	8.7	96
59	High strain rate superplasticity in continuous cast Alâ€“Mg alloys prepared via friction stir processing. Scripta Materialia, 2009, 60, 850-853.	5.2	95
60	A Combinatorial Approach for Assessing the Magnetic Properties of High Entropy Alloys: Role of Cr in AlCo_xCr_{1â€“x}FeNi. Advanced Engineering Materials, 2017, 19, 1700048.	3.5	95
61	Tensile superplasticity in a nanocrystalline nickel aluminide. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1998, 252, 174-178.	5.6	93
62	Hall-Petch and inverse Hall-Petch relations in high-entropy CoNiFeAlxCu1-x alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138873.	5.6	93
63	Additivity of strengthening mechanisms in ultrafine grained Alâ€“Mgâ€“Sc alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 580, 175-183.	5.6	92
64	High-temperature creep behavior of TiC particulate reinforced Tiâ€“6Alâ€“4V alloy composite. Acta Materialia, 2002, 50, 4293-4302.	7.9	90
65	Tool wear mechanisms in friction stir welding of Tiâ€“6Alâ€“4V alloy. Wear, 2014, 321, 25-32.	3.1	89
66	Friction Stir Processing of a High Entropy Alloy Al0.1CoCrFeNi. Jom, 2015, 67, 1007-1013.	1.9	89
67	Development of nanocrystalline structure in Cu during friction stir processing (FSP). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5458-5464.	5.6	85
68	Effect of friction stir processing on fatigue behavior of an investment cast Alâ€“7Siâ€“0.6 Mg alloy. Acta Materialia, 2010, 58, 989-1003.	7.9	84
69	A conceptual model for the process variables related to heat generation in friction stir welding of aluminum. Scripta Materialia, 2008, 58, 327-331.	5.2	83
70	Anomalies in the deformation mechanism and kinetics of coarse-grained high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 654, 256-263.	5.6	83
71	Reciprocating sliding wear behavior of high entropy alloys in dry and marine environments. Materials Chemistry and Physics, 2018, 210, 162-169.	4.0	82
72	Steady state creep behaviour of particulate-reinforced titanium matrix composites. Acta Materialia, 1996, 44, 927-935.	7.9	81

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73	Microstructure and mechanical behavior of friction stir processed ultrafine grained Alâ€“Mgâ€“Sc alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5883-5887.	5.6	81
74	High strain rate superplasticity in friction stir processed ultrafine grained Mgâ€“Alâ€“Zn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 562, 69-76.	5.6	80
75	Design approaches for printability-performance synergy in Al alloys for laser-powder bed additive manufacturing. Materials and Design, 2021, 204, 109640.	7.0	80
76	Material flow and microstructural evolution during friction stir spot welding of AZ31 magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 543, 200-209.	5.6	78
77	Spatially dependent properties in a laser additive manufactured Tiâ€“6Alâ€“4V component. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 654, 39-52.	5.6	78
78	Effect of microstructure on fatigue life and fracture morphology in an aluminum alloy. Scripta Materialia, 2009, 60, 500-503.	5.2	77
79	Evaluation of microstructure and superplasticity in friction stir processed 5083 Al alloy. Journal of Materials Research, 2004, 19, 3329-3342.	2.6	76
80	High entropy alloys â€“ Tunability of deformation mechanisms through integration of compositional and microstructural domains. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 812, 141085.	5.6	75
81	Dimensionally Induced Structural transformations in Titanium-Aluminum Multilayers. Physical Review Letters, 1996, 76, 3778-3781.	7.8	73
82	Effect of Friction Stir Processing on Microstructure and Mechanical Properties of a Cast-Magnesiumâ€“Rare Earth Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 73-84.	2.2	73
83	A study on the combined effect of forging and aging in Mgâ€“Yâ€“RE alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 530, 28-35.	5.6	72
84	Microstructure and mechanical properties of a friction stir processed Tiâ€“6Alâ€“4V alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 573, 67-74.	5.6	72
85	Reversed strength-ductility relationship in microstructurally flexible high entropy alloy. Scripta Materialia, 2018, 154, 163-167.	5.2	72
86	Oxide dispersion strengthened nickel based alloys via spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 630, 155-169.	5.6	71
87	Aging kinetics of friction stir welded Al-Cu-Li-Mg-Ag and Al-Cu-Li-Mg alloys. Materials and Design, 2016, 110, 60-71.	7.0	71
88	Cavitation in superplastic 7075Al alloys prepared via friction stir processing. Acta Materialia, 2003, 51, 3551-3569.	7.9	70
89	Superplastic behavior of micro-regions in two-pass friction stir processed 7075Al alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 505, 70-78.	5.6	70
90	Friction stir lap welded advanced high strength steels: Microstructure and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 8111-8119.	5.6	70

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91	Lattice strain framework for plastic deformation in complex concentrated alloys including high entropy alloys. Materials Science and Technology, 2015, 31, 1259-1263.	1.6	70
92	Evaluation of intermetallic compound layer at aluminum/steel interface joined by friction stir scribe technology. Materials and Design, 2019, 174, 107795.	7.0	70
93	A State-of-the-Art Review on Solid-State Metal Joining. , 2018, , .		69
94	Title is missing!. Plant Cell, Tissue and Organ Culture, 2003, 73, 21-35.	2.3	67
95	Microstructural Modification of Cast Aluminum Alloys via Friction Stir Processing. Materials Science Forum, 2003, 426-432, 2891-2896.	0.3	67
96	Survivability of single-walled carbon nanotubes during friction stir processing. Nanotechnology, 2006, 17, 3081-3084.	2.6	67
97	Friction stir welding of Alâ€“Mgâ€“Li 1424 alloy. Materials and Design, 2016, 106, 146-152.	7.0	67
98	Segregation engineering of grain boundaries of a metastable Fe-Mn-Co-Cr-Si high entropy alloy with laser-powder bed fusion additive manufacturing. Acta Materialia, 2021, 219, 117271.	7.9	67
99	Plasma activated sintering of nanocrystalline Î³-Al2O3. Scripta Materialia, 1995, 5, 525-544.	0.5	66
100	Upper critical field in nanostructured Nb: Competing effects of the reduction in density of states and the mean free path. Physical Review B, 2006, 74, .	3.2	66
101	Study of friction stir joining of thin aluminium sheets in lap joint configuration. Science and Technology of Welding and Joining, 2010, 15, 70-75.	3.1	66
102	Ultrathin alumina-coated carbon nanotubes as an anode for high capacity Li-ion batteries. Journal of Materials Chemistry, 2011, 21, 13621.	6.7	64
103	Simultaneous enhancement of strength and ductility in an AlCoCrFeNi2.1 eutectic high-entropy alloy via friction stir processing. Journal of Alloys and Compounds, 2018, 766, 312-317.	5.5	63
104	Influence of Texture on Mechanical Behavior of Friction-Stir-Processed Magnesium Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 13-17.	2.2	61
105	Extremely high fatigue resistance in an ultrafine grained high entropy alloy. Applied Materials Today, 2019, 15, 525-530.	4.3	61
106	Creep behaviour of an aluminium-silicon carbide particulate composite. Scripta Metallurgica Et Materialia, 1990, 24, 1565-1570.	1.0	60
107	Strength and ductility optimization of Mgâ€“Yâ€“Ndâ€“Zr alloy by microstructural design. International Journal of Plasticity, 2015, 68, 77-97.	8.8	60
108	Observations of low-temperature superplasticity in electrodeposited ultrafine grained nickel. Materials Letters, 2000, 45, 345-349.	2.6	59

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109	Characterization of high cycle fatigue behavior of a new generation aluminum lithium alloy. Acta Materialia, 2011, 59, 5946-5960.	7.9	59
110	Influence of ordered L12 precipitation on strain-rate dependent mechanical behavior in a eutectic high entropy alloy. Scientific Reports, 2019, 9, 6371.	3.3	59
111	High density of strong yet deformable intermetallic nanorods leads to an excellent room temperature strength-ductility combination in a high entropy alloy. Acta Materialia, 2021, 219, 117234.	7.9	59
112	Effect of friction stir processing on the kinetics of superplastic deformation in an Al-Mg-Zr alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2005, 36, 1447-1458.	2.2	57
113	Critical grain size for change in deformation behavior in ultrafine grained Alâ€“Mgâ€“Sc alloy. Scripta Materialia, 2011, 64, 576-579.	5.2	57
114	Friction stir-based additive manufacturing. Science and Technology of Welding and Joining, 2022, 27, 141-165.	3.1	57
115	Electric pulse assisted rapid consolidation of ultrafine grained alumina matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 287, 178-182.	5.6	55
116	Enhanced superplasticity through friction stir processing in continuous cast AA5083 aluminum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 464, 351-357.	5.6	55
117	Synthesis and characterization of self-organized multilayered grapheneâ€“carbon nanotube hybrid films. Journal of Materials Chemistry, 2011, 21, 7289.	6.7	55
118	Stress corrosion cracking susceptibility of ultrafine grained Alâ€“Mgâ€“Sc alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 565, 80-89.	5.6	55
119	Effect of microstructure on the uniaxial tensile deformation behavior of Mgâ€“4Yâ€“3RE alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 590, 116-131.	5.6	55
120	High-entropy alloy strengthened by in situ formation of entropy-stabilized nano-dispersoids. Scientific Reports, 2018, 8, 14085.	3.3	55
121	Laser additive manufacturing of compositionally graded AlCrFeMoVx (xâ€¯=â€¯0 to 1) high-entropy alloy system. Optics and Laser Technology, 2019, 113, 330-337.	4.6	55
122	TEM/HREM observations of nanostructured superplastic Ni₃Al. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 2001, 81, 25-36.	0.6	54
123	Process forces during friction stir channeling in an aluminum alloy. Journal of Materials Processing Technology, 2011, 211, 305-311.	6.3	54
124	Metastability-assisted fatigue behavior in a friction stir processed dual-phase high entropy alloy. Materials Research Letters, 2018, 6, 613-619.	8.7	54
125	Influence of Friction Stir Processing on Weld Temperature Distribution and Mechanical Properties of TIG-Welded Joint of AA6061 and AA7075. Transactions of the Indian Institute of Metals, 2020, 73, 1773-1788.	1.5	54
126	Effect of process parameters on abnormal grain growth during friction stir processing of a cast Al alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 528, 189-199.	5.6	53

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127	Microstructure and wear resistance of an intermetallic-based Al0.25Ti0.75CoCrFeNi high entropy alloy. Materials Chemistry and Physics, 2018, 210, 197-206.	4.0	53
128	Influence of initial crystal structure and electrical pulsing on densification of nanocrystalline alumina powder. Journal of Materials Research, 1998, 13, 86-89.	2.6	52
129	Strengthening of Al0.3CoCrFeMnNi-based ODS high entropy alloys with incremental changes in the concentration of Y2O3. Scripta Materialia, 2019, 162, 477-481.	5.2	52
130	Influence of friction stir processing on the room temperature fatigue cracking mechanisms of A356 aluminum alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 716, 165-178.	5.6	51
131	Unexpected strengthâ€"ductility response in an annealed, metastable, high-entropy alloy. Applied Materials Today, 2018, 13, 198-206.	4.3	50
132	Microstructure and mechanical behavior of an additive manufactured (AM) WE43-Mg alloy. Additive Manufacturing, 2019, 26, 53-64.	3.0	50
133	High-temperature creep of Alî—¸TiB2 particulate composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 189, 95-104.	5.6	49
134	Grain size dependence of strain rate sensitivity in a single phase FCC high entropy alloy Al0.3CoCrFeNi. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 736, 344-348.	5.6	49
135	Towards heterogeneous AlxCoCrFeNi high entropy alloy via friction stir processing. Materials Letters, 2019, 236, 472-475.	2.6	48
136	Process-Dependent Composition, Microstructure, and Printability of Al-Zn-Mg and Al-Zn-Mg-Sc-Zr Alloys Manufactured by Laser Powder Bed Fusion. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 3215-3227.	2.2	48
137	Microstructure and steady state creep in Ti-24Al-11Nb. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1990, 130, 151-164.	5.6	47
138	Fatigue crack growth behavior of friction stir processed aluminum alloy. Scripta Materialia, 2008, 59, 395-398.	5.2	47
139	Influence of friction stir processing tool design on microstructure and superplastic behavior of Al-Mg alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 670, 9-16.	5.6	47
140	Effect of friction stir processing on mechanical properties and heat transfer of TIG welded joint of AA6061 and AA7075. Defence Technology, 2021, 17, 715-727.	4.2	47
141	On superplasticity in silicon carbide reinforced aluminum composites. Scripta Metallurgica Et Materialia, 1991, 25, 271-275.	1.0	46
142	Creep behaviour of an orthorhombic phase in a Tiî—¸Alî—¸Nb alloy. Scripta Metallurgica Et Materialia, 1993, 28, 569-574.	1.0	46
143	Enhanced superplastic properties in bulk metastable nanostructured alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 304-306, 206-210.	5.6	46
144	Microstructure and mechanical properties of friction stir welded oxide dispersion strengthened alloy. Journal of Nuclear Materials, 2013, 432, 274-280.	2.7	46

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145	Microstructures with extraordinary dynamic work hardening and strain rate sensitivity in Al0.3CoCrFeNi high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 734, 42-50.	5.6	46
146	Enhanced tensile yield strength in laser additively manufactured Al0.3CoCrFeNi high entropy alloy. Materialia, 2020, 9, 100522.	2.7	46
147	Microstructural Modification and Resultant Properties of Friction Stir Processed Cast NiAl Bronze. Materials Science Forum, 2003, 426-432, 2843-2848.	0.3	45
148	In Situ Laser Synthesis of Fe-Based Amorphous Matrix Composite Coating on Structural Steel. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 4957-4966.	2.2	45
149	Chemical-Affinity Disparity and Exclusivity Drive Atomic Segregation, Short-Range Ordering, and Cluster Formation in High-Entropy Alloys. Acta Materialia, 2021, 206, 116638.	7.9	45
150	The threshold stress for creep controlled by dislocation-particle interaction. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1994, 69, 1097-1109.	0.6	44
151	Influence of process parameters on microstructural evolution and mechanical properties in friction stirred Al-2024 (T3) alloy. Science and Technology of Welding and Joining, 2009, 14, 346-355.	3.1	44
152	Serration behavior and negative strain rate sensitivity of Al0.1CoCrFeNi high entropy alloy. Intermetallics, 2017, 84, 20-24.	3.9	44
153	Friction stir channeling: Characterization of the channels. Journal of Materials Processing Technology, 2009, 209, 3696-3704.	6.3	43
154	Friction stir welding of precipitation strengthened aluminium alloys: Scope and challenges. Science and Technology of Welding and Joining, 2011, 16, 343-347.	3.1	43
155	Achieving High Strength and High Ductility in Friction Stir-Processed Cast Magnesium Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 3675-3684.	2.2	43
156	Effect of Friction Stir Processing on Microstructure and Mechanical Properties of TIG Welded Joint of AA6061 and AA7075. Metallography, Microstructure, and Analysis, 2020, 9, 403-418.	1.0	43
157	Effect of Friction Stir Processing on Microstructure and Tensile Properties of an Investment Cast Al-7Si-0.6Mg Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 2507-2521.	2.2	42
158	Effect of friction stir processed microstructure on tensile properties of an Al-Zn-Mg-Sc alloy upon subsequent aging heat treatment. Journal of Materials Science and Technology, 2018, 34, 214-218.	10.7	42
159	The observation of tensile superplasticity in nanocrystalline materials. Scripta Materialia, 1997, 9, 473-476.	0.5	41
160	Deformation mechanisms and tensile superplasticity in nanocrystalline materials. Jom, 1999, 51, 37-40.	1.9	41
161	Enhancing elevated temperature strength of copper containing aluminium alloys by forming L12 Al3Zr precipitates and nucleating Î¸â€³ precipitates on them. Scientific Reports, 2017, 7, 11154.	3.3	41
162	Nanoindentation behavior of high entropy alloys with transformation-induced plasticity. Scientific Reports, 2019, 9, 6639.	3.3	41

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163	Alloy design and adaptation for additive manufacture. Journal of Materials Processing Technology, 2022, 299, 117358.	6.3	41
164	Process forces during friction stir welding of aluminium alloys. Science and Technology of Welding and Joining, 2009, 14, 141-145.	3.1	40
165	Effect of stress ratio on the fatigue behavior of a friction stir processed cast Alâ€“Siâ€“Mg alloy. Scripta Materialia, 2009, 61, 992-995.	5.2	40
166	Study of Î²-precipitates and their effect on the directional yield asymmetry of friction stir processed and aged AZ91C alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 560, 500-509.	5.6	40
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