Zong-Yi

List of Publications by Year
in descending order

159 papers	8,603 citations	36203 51 h-index	58464 82 g-index
159 all docs	159 docs citations	159 times ranked	3791 citing authors

#	Article	IF	Citations
1	Friction Stir Processing Technology: A Review. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 642-658.	1.1	925
2	Enhanced mechanical properties of Mgâ€“Alâ€“Zn cast alloy via friction stir processing. Scripta Materialia, 2007, 56, 397-400.	2.6	255
3	Singly dispersed carbon nanotube/aluminum composites fabricated by powder metallurgy combined with friction stir processing. Carbon, 2012, 50, 1843-1852.	5.4	255
4	Microstructural refinement and property enhancement of cast light alloys via friction stir processing. Scripta Materialia, 2008, 58, 361-366.	2.6	226
5	Recent Advances in Friction Stir Welding/Processing of Aluminum Alloys: Microstructural Evolution and Mechanical Properties. Critical Reviews in Solid State and Materials Sciences, 2018, 43, 269-333.	6.8	223
6	Influence of Tool Dimension and Welding Parameters on Microstructure and Mechanical Properties of Friction-Stir-Welded 6061-T651 Aluminum Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 2378-2388.	1.1	160
7	Deformation and strengthening mechanisms of a carbon nanotube reinforced aluminum composite. Carbon, 2016, 104, 64-77.	5.4	156
8	Reactive mechanism and mechanical properties of in situ composites fabricated from an Alâ€“TiO2 system by friction stir processing. Acta Materialia, 2012, 60, 7090-7103.	3.8	144
9	High efficiency dispersal and strengthening of graphene reinforced aluminum alloy composites fabricated by powder metallurgy combined with friction stir processing. Carbon, 2018, 135, 215-223.	5.4	136
10	Superplastic deformation mechanism of an ultrafine-grained aluminum alloy produced by friction stir processing. Acta Materialia, 2010, 58, 4693-4704.	3.8	135
11	Analysis of carbon nanotube shortening and composite strengthening in carbon nanotube/aluminum composites fabricated by multi-pass friction stir processing. Carbon, 2014, 69, 264-274.	5.4	133
12	Developing high-performance aluminum matrix composites with directionally aligned carbon nanotubes by combining friction stir processing and subsequent rolling. Carbon, 2013, 62, 35-42.	5.4	131
13	Corrosion properties of frictionâ€“stir processed cast NiAl bronze. Corrosion Science, 2010, 52, 1610-1617.	3.0	123
14	Effect of pre-strain and two-step aging on microstructure and stress corrosion cracking of 7050 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 494, 360-366.	2.6	122
15	The origin of non-uniform microstructure and its effects on the mechanical properties of a friction stir processed Alâ€“Mg alloy. Acta Materialia, 2009, 57, 5718-5729.	3.8	115
16	An enhanced FEM model for particle size dependent flow strengthening and interface damage in particle reinforced metal matrix composites. Composites Science and Technology, 2011, 71, 39-45.	3.8	115
17	Fabrication of CNT/Al composites with low damage to CNTs by a novel solution-assisted wet mixing combined with powder metallurgy processing. Materials and Design, 2016, 97, 424-430.	3.3	106
18	Achieving friction stir welded pure copper joints with nearly equal strength to the parent metal via additional rapid cooling. Scripta Materialia, 2011, 64, 1051-1054.	2.6	98

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19	Hardness recovery mechanism in the heat-affected zone during long-term natural aging and its influence on the mechanical properties and fracture behavior of friction stir welded 2024Alâ€“T351 joints. Acta Materialia, 2014, 73, 227-239.	3.8	95
20	Enhancing strength and ductility synergy through heterogeneous structure design in nanoscale Al2O3 particulate reinforced Al composites. Materials and Design, 2019, 166, 107629.	3.3	94
21	Effects of Rotation Rates on Microstructure, Mechanical Properties, and Fracture Behavior of Friction Stir-Welded (FSW) AZ31 Magnesium Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 517-530.	1.1	93
22	Modelling of carbon nanotube dispersion and strengthening mechanisms in Al matrix composites prepared by high energy ball milling-powder metallurgy method. Composites Part A: Applied Science and Manufacturing, 2017, 94, 189-198.	3.8	88
23	Formation mechanism of in situ Al3Ti in Al matrix during hot pressing and subsequent friction stir processing. Materials Chemistry and Physics, 2011, 130, 1109-1117.	2.0	77
24	Achieving high property friction stir welded aluminium/copper lap joint at low heat input. Science and Technology of Welding and Joining, 2011, 16, 657-661.	1.5	77
25	High tensile ductility via enhanced strain hardening in ultrafine-grained Cu. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 532, 106-110.	2.6	77
26	Effect of Heat Input Conditions on Microstructure and Mechanical Properties of Friction-Stir-Welded Pure Copper. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 2010-2021.	1.1	76
27	Inhomogeneous microstructure and mechanical properties of friction stir processed NiAl bronze. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 524, 119-128.	2.6	75
28	Effect of Interfacial Microstructure Evolution on Mechanical Properties and Fracture Behavior of Friction Stir-Welded Al-Cu Joints. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 3091-3103.	1.1	73
29	Constitutive flow behavior and hot workability of powder metallurgy processed 20vol.%SiCP/2024Al composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7865-7872.	2.6	72
30	Microstructural evolution of aluminum alloy during friction stir welding under different tool rotation rates and cooling conditions. Journal of Materials Science and Technology, 2019, 35, 972-981.	5.6	70
31	Effect of Friction Stir Processing Procedures on Microstructure and Mechanical Properties of Mg-Al-Zn Casting. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 2447-2456.	1.1	69
32	Enhancement of the strength-ductility relationship for carbon nanotube/Alâ€“Cuâ€“Mg nanocomposites by material parameter optimisation. Carbon, 2020, 157, 602-613.	5.4	68
33	A Transient Thermal Model for Friction Stir Weld. Part I: The Model. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3218-3228.	1.1	67
34	Exceptional high-strain-rate superplasticity in Mgâ€“Gdâ€“Yâ€“Znâ€“Zr alloy with long-period stacking ordered phase. Scripta Materialia, 2013, 69, 801-804.	2.6	67
35	Elevated temperature tensile properties and thermal expansion of CNT/2009Al composites. Composites Science and Technology, 2012, 72, 1826-1833.	3.8	65
36	Microstructural evolution in recrystallized and unrecrystallized Alâ€“Mgâ€“Sc alloys during superplastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 547, 55-63.	2.6	65

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37	Influence of water cooling on microstructure and mechanical properties of friction stir welded 2014Al-T6 joints. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 614, 6-15.	2.6	64
38	High Strain Rate Superplasticity in a Micro-grained Alâ€"Mgâ€"Sc Alloy with Predominant High Angle Grain Boundaries. Journal of Materials Science and Technology, 2012, 28, 1025-1030.	5.6	61
39	Evolution of interfacial nanostructures and stress states in Mg matrix composites reinforced with coated continuous carbon fibers. Composites Science and Technology, 2012, 72, 152-158.	3.8	61
40	Fabrication of high-quality Ti joint with ultrafine grains using submerged friction stirring technology and its microstructural evolution mechanism. Acta Materialia, 2019, 166, 371-385.	3.8	60
41	Enhancing the high-cycle fatigue strength of Mgâ€"9Alâ€"1Zn casting by friction stir processing. Scripta Materialia, 2009, 61, 568-571.	2.6	59
42	Effect of welding parameters on microstructure and mechanical properties of friction stir welded 2219Al-T6 joints. Journal of Materials Science, 2012, 47, 4075-4086.	1.7	58
43	Effect of interfacial reaction on age-hardening ability of B4C/6061Al composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 620, 445-453.	2.6	58
44	Enhancing high-temperature strength of (B4C+Al2O3)/Al designed for neutron absorbing materials by constructing lamellar structure. Composites Part B: Engineering, 2020, 183, 107674.	5.9	58
45	Influence of microstructural evolution on tensile properties of friction stir welded joint of rolled SiCp/AA2009-T351 sheet. Materials & Design, 2013, 51, 199-205.	5.1	57
46	Enhancing strengthening efficiency of graphene nano-sheets in aluminum matrix composite by improving interface bonding. Composites Part B: Engineering, 2020, 199, 108268.	5.9	57
47	Determination of macroscopic and microscopic residual stresses in friction stir welded metal matrix composites via neutron diffraction. Acta Materialia, 2015, 87, 161-173.	3.8	55
48	Pinless Friction Stir Spot Welding of Mgâ€'3Alâ€'1Zn Alloy with Zn Interlayer. Journal of Materials Science and Technology, 2016, 32, 76-88.	5.6	55
49	Achieving Large-area Bulk Ultrafine Grained Cu via Submerged Multiple-pass Friction Stir Processing. Journal of Materials Science and Technology, 2013, 29, 1111-1115.	5.6	54
50	Tensile properties and strain-hardening behaviour of friction stir welded SiCp/AA2009 composite joints. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 608, 1-10.	2.6	54
51	Enhancing mechanical properties of friction stir welded 2219Al-T6 joints at high welding speed through water cooling and post-welding artificial ageing. Materials Characterization, 2015, 106, 255-265.	1.9	54
52	Effect of Alclad Layer on Material Flow and Defect Formation in Friction-Stir-Welded 2024 Aluminum Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 1717-1726.	1.1	52
53	Microstructural evolution and mechanical properties of friction stir welded joint of Feâ€"Crâ€"Mnâ€"Moâ€"N austenite stainless steel. Materials & Design, 2014, 64, 355-359.	5.1	52
54	Microstructural evolution of the thermomechanically affected zone in a Tiâ€"6Alâ€"4V friction stir welded joint. Scripta Materialia, 2014, 78-79, 17-20.	2.6	51

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55	Finite element and experimental analysis of machinability during machining of high-volume fraction SiCp/Al composites. International Journal of Advanced Manufacturing Technology, 2017, 91, 1935-1944.	1.5	51
56	Formation of long-period stacking ordered phase only within grains in Mgâ€"Gdâ€"Yâ€"Znâ€"Zr casting by friction stir processing. Journal of Alloys and Compounds, 2013, 581, 585-589.	2.8	49
57	Friction stir welding of Zr55Cu30Al10Ni5 bulk metallic glass to Alâ€"Znâ€"Mgâ€"Cu alloy. Scripta Materialia, 2009, 60, 112-115.	2.6	48
58	Simultaneously improving mechanical properties and damping capacity of Al-Mg-Si alloy through friction stir processing. Materials Characterization, 2017, 131, 425-430.	1.9	48
59	Effect of initial butt surface on tensile properties and fracture behavior of friction stir welded Alâ€"Znâ€"Mgâ€"Cu alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 479, 293-299.	2.6	47
60	Microstructural evolution and pitting corrosion behavior of friction stir welded joint of high nitrogen stainless steel. Materials and Design, 2016, 110, 802-810.	3.3	45
61	Introducing graphene (reduced graphene oxide) into Al matrix composites for enhanced high-temperature strength. Composites Part B: Engineering, 2020, 195, 108095.	5.9	43
62	Achieving superior low-temperature superplasticity for lamellar microstructure in nugget of a friction stir welded Ti-6Al-4V joint. Scripta Materialia, 2016, 122, 26-30.	2.6	42
63	Interfacial reaction mechanism between matrix and reinforcement in B4C/6061Al composites. Materials Chemistry and Physics, 2015, 154, 107-117.	2.0	41
64	Microstructure and mechanical properties of friction stir processed Cu with an ideal ultrafine-grained structure. Materials Characterization, 2016, 121, 187-194.	1.9	41
65	Influence of Process Parameters on Microstructure and Mechanical Properties of Friction-Stir-Processed Mg-Gd-Y-Zr Casting. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 2094-2109.	1.1	40
66	Hot deformation and activation energy of a CNT-reinforced aluminum matrix nanocomposite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 695, 322-331.	2.6	40
67	Simulation of anisotropic load transfer and stress distribution in sicp/Al composites subjected to tensile loading. Mechanics of Materials, 2018, 122, 96-103.	1.7	40
68	Realization of exceptionally high elongation at high strain rate in a friction stir processed Alâ€"Znâ€"Mgâ€"Cu alloy with the presence of liquid phase. Scripta Materialia, 2011, 64, 572-575.	2.6	39
69	A Transient Thermal Model for Friction Stir Weld. Part II: Effects of Weld Conditions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3229-3239.	1.1	39
70	Achieving ultrafine-grained structure in a pure nickel by friction stir processing with additional cooling. Materials & Design, 2014, 56, 848-851.	5.1	39
71	Friction Stir Welding of Discontinuously Reinforced Aluminum Matrix Composites: A Review. Acta Metallurgica Sinica (English Letters), 2014, 27, 816-824.	1.5	39
72	A comparative research on bobbin tool and conventional friction stir welding of Al-Mg-Si alloy plates. Materials Characterization, 2018, 145, 20-28.	1.9	39

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73	Homogenization of the average thermo-elastoplastic properties of particle reinforced metal matrix composites: The minimum representative volume element size. Composite Structures, 2014, 113, 459-468.	3.1	38
74	Material flow and void defect formation in friction stir welding of aluminium alloys. Science and Technology of Welding and Joining, 2018, 23, 677-686.	1.5	37
75	Microstructural evolution and mechanical properties of ultrafine grained Al3Ti/Alâ€"5.5Cu composites produced via hot pressing and subsequent friction stir processing. Materials Chemistry and Physics, 2012, 134, 294-301.	2.0	36
76	Effect of Segregation of Secondary Phase Particles and â€œSâ€•Line on Tensile Fracture Behavior of Friction Stir-Welded 2024Al-T351 Joints. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 4081-4097.	1.1	36
77	Effect of Carbon Nanotube Orientation on Mechanical Properties and Thermal Expansion Coefficient of Carbon Nanotube-Reinforced Aluminum Matrix Composites. Acta Metallurgica Sinica (English) Tj ETQq1 1 0.784314 rgBT /Overlock 1	1.5	36
78	Achieving superior superplasticity from lamellar microstructure of a nugget in a friction-stir-welded Tiâ€"6Alâ€"4V joint. Scripta Materialia, 2015, 98, 44-47.	2.6	35
79	Enhanced mechanical properties of medium carbon steel casting via friction stir processing and subsequent annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 670, 153-158.	2.6	35
80	Fabrication of Alâ€"35Zn alloys with excellent damping capacity and mechanical properties. Journal of Alloys and Compounds, 2017, 722, 138-144.	2.8	35
81	Effect of Sc addition, friction stir processing, and T6 treatment on the damping and mechanical properties of 7055 Al alloy. Journal of Alloys and Compounds, 2019, 772, 775-781.	2.8	35
82	Grain size effect on tensile deformation behaviors of pure aluminum. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 820, 141504.	2.6	35
83	Effects of friction stir processing and minor Sc addition on the microstructure, mechanical properties, and damping capacity of 7055 Al alloy. Materials Characterization, 2018, 135, 25-31.	1.9	34
84	Low cycle fatigue properties of friction stir welded joints of a semi-solid processed AZ91D magnesium alloy. Materials & Design, 2014, 56, 1-8.	5.1	33
85	Effect of nanometer TiC coated diamond on the strength and thermal conductivity of diamond/Al composites. Materials Chemistry and Physics, 2016, 182, 256-262.	2.0	33
86	Intrinsic high cycle fatigue behavior of ultrafine grained pure Cu with stable structure. Science China Materials, 2016, 59, 531-537.	3.5	32
87	Formation of Cu2FeAl7 phase in friction-stir-welded SiCp/Alâ€"Cuâ€"Mg composite. Scripta Materialia, 2007, 57, 1113-1116.	2.6	31
88	Achieving ultra-high strength friction stir welded joints of high nitrogen stainless steel by forced water cooling. Journal of Materials Science and Technology, 2018, 34, 2183-2188.	5.6	31
89	Effects of Friction Stir Processing Parameters and In Situ Passes on Microstructure and Tensile Properties of Al-Si-Mg Casting. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 5318-5331.	1.1	30
90	Influencing mechanism of Zn interlayer addition on hook defects of friction stir spot welded Mgâ€"Alâ€"Zn alloy joints. Materials & Design, 2015, 69, 163-169.	5.1	30

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91	Effect of scandium on microstructure and mechanical properties of high zinc concentration aluminum alloys. Materials Characterization, 2017, 127, 371-378.	1.9	30
92	Microstructure and mechanical properties of (B4C+Al2O3)/Al composites designed for neutron absorbing materials with both structural and functional usages. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138840.	2.6	30
93	Mechanically activated effect of friction stir processing in Alâ€"Ti reaction. Materials Chemistry and Physics, 2013, 139, 596-602.	2.0	29
94	Effects of pre-aging and minor Sc addition on the microstructure and mechanical properties of friction stir processed 7055 Al alloy. Vacuum, 2018, 149, 106-113.	1.6	29
95	Microstructural evolution and enhanced superplasticity in friction stir processed Mgâ€"Znâ€"Yâ€"Zr alloy. Journal of Materials Research, 2008, 23, 1207-1213.	1.2	28
96	Distribution of the microalloying element Cu in B4C-reinforced 6061Al composites. Journal of Alloys and Compounds, 2017, 728, 112-117.	2.8	28
97	Investigation of superplasticity in friction stir processed 2219Al alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 4191-4196.	2.6	27
98	Study on distribution of long-period stacking ordered phase in Mgâ€"Gdâ€"Yâ€"Znâ€"Zr alloy using friction stir processing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 626, 275-285.	2.6	27
99	Origin of Insignificant Strengthening Effect of CNTs in T6-Treated CNT/6061Al Composites. Acta Metallurgica Sinica (English Letters), 2018, 31, 134-142.	1.5	27
100	Enhanced combination of mechanical properties and electrical conductivity of a hard state Cu-Cr-Zr alloy via one-step friction stir processing. Journal of Materials Processing Technology, 2021, 288, 116880.	3.1	27
101	Achieving high strain rate superplasticity in cast 7075Al alloy via friction stir processing. Journal of Materials Science, 2009, 44, 2647-2655.	1.7	26
102	Effect of Multiple-Pass Friction Stir Processing Overlapping on Microstructure and Mechanical Properties of As-Cast NiAl Bronze. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 2125-2135.	1.1	26
103	Non-uniform deformation in a friction stir welded Mgâ€"Alâ€"Zn joint during stress fatigue. International Journal of Fatigue, 2014, 59, 9-13.	2.8	25
104	Multiscale modeling of macroscopic and microscopic residual stresses in metal matrix composites using 3D realistic digital microstructure models. Composite Structures, 2016, 137, 18-32.	3.1	25
105	Improved photocatalytic properties of ZnS/RGO nanocomposites prepared with GO solution in degrading methyl orange. Nano Structures Nano Objects, 2017, 10, 176-181.	1.9	24
106	Three-dimensional processing maps and microstructural evolution of a CNT-reinforced Al-Cu-Mg nanocomposite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 702, 425-437.	2.6	24
107	High damping capacity of Al alloys produced by friction stir processing. Materials Characterization, 2018, 136, 382-387.	1.9	24
108	Mechanical and Damping Behavior of Age-Hardened and Non-age-hardened Al Alloys After Friction Stir Processing. Acta Metallurgica Sinica (English Letters), 2019, 32, 1135-1141.	1.5	24

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109	Friction stir welding of as-extruded Mgâ€“Alâ€“Zn alloy with higher Al content. Part I: Formation of banded and line structures. Materials Characterization, 2014, 96, 142-150.	1.9	23
110	Dynamic precipitation of Alâ€“Zn alloy during rolling and accumulative roll bonding. Philosophical Magazine Letters, 2015, 95, 539-546.	0.5	23
111	Enhancing high-temperature strength of B4Câ€“6061Al neutron absorber material by in-situ Mg(Al)B2. Journal of Nuclear Materials, 2019, 526, 151788.	1.3	23
112	Thermally stable microstructures and mechanical properties of B4C-Al composite with in-situ formed Mg(Al)B2. Journal of Materials Science and Technology, 2019, 35, 1825-1830.	5.6	23
113	An approach to enhancement of Mg alloy joint performance by additional pass of friction stir processing. Journal of Materials Processing Technology, 2019, 264, 336-345.	3.1	23
114	Deformation behavior and strengthening mechanisms in a CNT-reinforced bimodal-grained aluminum matrix nanocomposite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 817, 141370.	2.6	23
115	Microstructural refinement mechanism and its effect on toughness in the nugget zone of high-strength pipeline steel by friction stir welding. Journal of Materials Science and Technology, 2021, 93, 221-231.	5.6	23
116	Partial recrystallization in the nugget zone of friction stir welded dual-phase Cuâ€“Zn alloy. Philosophical Magazine, 2009, 89, 1505-1516.	0.7	22
117	Influencing mechanism of Al-containing Zn coating on interfacial microstructure and mechanical properties of friction stir spot welded Mgâ€“steel joint. Materials Characterization, 2018, 140, 197-206.	1.9	22
118	Effect of Processing Parameters on Plastic Flow and Defect Formation in Friction-Stir-Welded Aluminum Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 2673-2683.	1.1	22
119	Enhanced multiscale modeling of macroscopic and microscopic residual stresses evolution during multi-thermo-mechanical processes. Materials and Design, 2017, 115, 364-378.	3.3	21
120	Effects of welding speed on the multiscale residual stresses in friction stir welded metal matrix composites. Journal of Materials Science and Technology, 2019, 35, 824-832.	5.6	21
121	Effect of post weld artificial aging and water cooling on microstructure and mechanical properties of friction stir welded 2198-T8 Al-Li joints. Journal of Materials Science and Technology, 2022, 123, 92-112.	5.6	21
122	In situ formation of various intermetallic particles in Alâ€“Tiâ€“X(Cu, Mg) systems during friction stir processing. Intermetallics, 2013, 40, 36-44.	1.8	20
123	Friction stir welding of as-extruded Mgâ€“Alâ€“Zn alloy with higher Al content. Part II: Influence of precipitates. Materials Characterization, 2014, 96, 135-141.	1.9	20
124	Effects of Processing Parameters on the Microstructures and Mechanical Properties of In Situ (Al3TiÂ+ÂAl2O3)/Al Composites Fabricated by Hot Pressing and Subsequent Friction-Stir Processing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 2776-2791.	1.1	19
125	Multi-scale modeling of the macroscopic, elastic mismatch and thermal misfit stresses in metal matrix composites. Composite Structures, 2015, 125, 176-187.	3.1	19
126	Improved cyclic softening behavior of ultrafine-grained Cu with high microstructural stability. Scripta Materialia, 2019, 166, 10-14.	2.6	19

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127	Strain-Controlled Low-Cycle Fatigue Behavior of Friction Stir-Welded AZ31 Magnesium Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 2101-2115.	1.1	18
128	Atomic-scale quasi in-situ TEM observation on the redistribution of alloying element Cu in a B4C/Al composite at the initial stage of corrosion. Corrosion Science, 2020, 174, 108808.	3.0	18
129	Corrosion onset associated with the reinforcement and secondary phases in B4C-6061Al neutron absorber material in H3BO3 solution. Corrosion Science, 2019, 153, 74-84.	3.0	17
130	Influence of Zn interlayer addition on microstructure and mechanical properties of friction stir welded AZ31ÂMg alloy. Journal of Materials Science, 2015, 50, 4160-4173.	1.7	16
131	Realising equal strength welding to parent metal in precipitation-hardened Alâ€"Mgâ€"Si alloy via low heat input friction stir welding. Science and Technology of Welding and Joining, 2018, 23, 478-486.	1.5	16
132	Superplastic deformation behavior of lamellar microstructure in a hydrogenated friction stir welded Ti-6Al-4V joint. Journal of Alloys and Compounds, 2019, 787, 1320-1326.	2.8	16
133	Mechanical properties and thermal stability of 7055 Al alloy by minor Sc addition. Rare Metals, 2020, 39, 725-732.	3.6	16
134	Enhancing strength-ductility synergy of carbon nanotube/7055Al composite via a texture design by hot-rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 806, 140830.	2.6	16
135	Improving the high-cycle fatigue strength of heterogeneous carbon nanotube/Al-Cu-Mg composites through grain size design in ductile-zones. Composites Part B: Engineering, 2021, 222, 109094.	5.9	16
136	Evolution mechanisms of microstructure and mechanical properties in a friction stir welded ultrahigh-strength quenching and partitioning steel. Journal of Materials Science and Technology, 2022, 102, 213-223.	5.6	16
137	Effects of heating rates on microstructure and superplastic behavior of friction stir processed 7075 aluminum alloy. Journal of Materials Science, 2015, 50, 1006-1015.	1.7	15
138	Influence of Zn coating on friction stir spot welded magnesium-aluminium joint. Science and Technology of Welding and Joining, 2017, 22, 512-519.	1.5	15
139	Abnormal deformation behavior and particle distribution during hot compression of fine-grained 14â€‰vol% SiCp/2014Al composite. Journal of Alloys and Compounds, 2018, 743, 87-98.	2.8	15
140	Suppressed negative effects of natural aging by pre-aging in SiCp/6092Al composites. Composites Part B: Engineering, 2021, 212, 108730.	5.9	15
141	A fast numerical method of introducing the strengthening effect of residual stress and strain to tensile behavior of metal matrix composites. Journal of Materials Science and Technology, 2021, 87, 167-175.	5.6	15
142	Defect formation, microstructure evolution, and mechanical properties of bobbin tool frictionâ€"stir welded 2219-T8 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 832, 142414.	2.6	15
143	Effect of welding speed and post-weld aging on the microstructure and mechanical properties of friction stir welded B4Cp/6061Al-T6 composites. Journal of Materials Processing Technology, 2019, 273, 116242.	3.1	14
144	Effects of natural aging on precipitation behavior and hardening ability of peak artificially aged SiCp/Al-Mg-Si composites. Composites Part B: Engineering, 2022, 236, 109851.	5.9	14

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145	Different fatigue behavior between tension-tension and tension-compression of carbon nanotubes reinforced 7055 Al composite with bimodal structure. Carbon, 2021, 184, 364-374.	5.4	13
146	Superplastic Constitutive Equation Including Percentage of High-Angle Grain Boundaries as a Microstructural Parameter. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2016, 47, 546-559.	1.1	12
147	Effects of Sc and Zr microalloying on the microstructure and mechanical properties of high Cu content 7xxx Al alloy. International Journal of Minerals, Metallurgy and Materials, 2019, 26, 1559-1569.	2.4	11
148	Achieving superior low temperature and high strain rate superplasticity in submerged friction stir welded Ti-6Al-4V alloy. Science China Materials, 2018, 61, 417-423.	3.5	10
149	Static spheroidization and its effect on superplasticity of fine lamellae in nugget of a friction stir welded Ti-6Al-4V joint. Journal of Materials Science and Technology, 2022, 119, 1-10.	5.6	10
150	Effect of static annealing on superplastic behavior of a friction stir welded Ti-6Al-4V alloy joint and microstructural evolution during deformation. Journal of Materials Science and Technology, 2022, 130, 112-123.	5.6	10
151	Effect of S2â˜ donors on synthesizing and photocatalytic degrading properties of ZnS/RGO nanocomposite. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	9
152	Failure mechanism of nano-structural interfacial layer in Mg matrix composites reinforced with Cf. Composites Part A: Applied Science and Manufacturing, 2022, 154, 106780.	3.8	9
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