W J Kim

List of Publications by Year
in descending order

219	8,853	47006 47	53230 85
papers	citations	h-index	g-index

231	231	231	4465
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Texture development and its effect on mechanical properties of an AZ61 Mg alloy fabricated by equal channel angular pressing. Acta Materialia, 2003, 51, 3293-3307.	7.9	508
2	Thoracic Pedicle Screw Fixation in Spinal Deformities. Spine, 2001, 26, 2049-2057.	2.0	441
3	Mechanical properties and microstructures of an AZ61 Mg Alloy produced by equal channel angular pressing. Scripta Materialia, 2002, 47, 39-44.	5.2	330
4	Multi-layer graphene/copper composites: Preparation using high-ratio differential speed rolling, microstructure and mechanical properties. Carbon, 2014, 69, 55-65.	10.3	313
5	Superplasticity in thin magnesium alloy sheets and deformation mechanism maps for magnesium alloys at elevated temperatures. Acta Materialia, 2001, 49, 3337-3345.	7.9	297
6	Optimization of strength and ductility of 2024 Al by equal channel angular pressing (ECAP) and post-ECAP aging. Scripta Materialia, 2003, 49, 333-338.	5.2	227
7	Microstructure and mechanical properties of Mgâ€“Alâ€“Zn alloy sheets severely deformed by asymmetrical rolling. Scripta Materialia, 2007, 56, 309-312.	5.2	213
8	Enhancement of mechanical properties and corrosion resistance of Mgâ€“Ca alloys through microstructural refinement by indirect extrusion. Corrosion Science, 2014, 82, 392-403.	6.6	199
9	Effect of aging treatment on heavily deformed microstructure of a 6061 aluminum alloy after equal channel angular pressing. Scripta Materialia, 2001, 45, 901-907.	5.2	197
10	Microstructural instability and strength of an AZ31 Mg alloy after severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 385, 300-308.	5.6	191
11	Enhancement of strength and superplasticity in a 6061 Al alloy processed by equal-channel-angular-pressing. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2002, 33, 3155-3164.	2.2	162
12	Strength and strain hardening of aluminum matrix composites with randomly dispersed nanometer-length fragmented carbon nanotubes. Scripta Materialia, 2013, 68, 711-714.	5.2	160
13	Achieving high strength and high ductility in magnesium alloys using severe plastic deformation combined with low-temperature aging. Scripta Materialia, 2009, 61, 1040-1043.	5.2	155
14	Improvement of high-cycle fatigue life in a 6061 Al alloy produced by equal channel angular pressing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 337, 39-44.	5.6	139
15	Development of biodegradable Mgâ€“Ca alloy sheets with enhanced strength and corrosion properties through the refinement and uniform dispersion of the Mg2Ca phase by high-ratio differential speed rolling. Acta Biomaterialia, 2015, 11, 531-542.	8.3	124
16	Micro-extrusion of ECAP processed magnesium alloy for production of high strength magnesium micro-gears. Scripta Materialia, 2006, 54, 1391-1395.	5.2	117
17	Microstructural characteristics and thermal stability of ultrafine grained 6061 Al alloy fabricated by accumulative roll bonding process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 316, 145-152.	5.6	115
18	Large enhancement in mechanical properties of the 6061 Al alloys after a single pressing by ECAP. Scripta Materialia, 2005, 53, 1207-1211.	5.2	111

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19	Effect of differential speed rolling on microstructure and mechanical properties of an AZ91 magnesium alloy. Journal of Alloys and Compounds, 2008, 460, 289-293.	5.5	110
20	A combination of ball milling and high-ratio differential speed rolling for synthesizing carbon nanotube/copper composites. Carbon, 2013, 61, 487-500.	10.3	110
21	Microstructure and mechanical properties of pure Ti processed by high-ratio differential speed rolling at room temperature. Scripta Materialia, 2010, 62, 451-454.	5.2	109
22	Grain-Size Strengthening in Equal-Channel-Angular-Pressing Processed AZ31 Mg Alloys with a Constant Texture. Materials Transactions, 2005, 46, 251-258.	1.2	102
23	Enhanced corrosion resistance of ultrafine-grained AZ61 alloy containing very fine particles of Mg17Al12 phase. Corrosion Science, 2013, 75, 228-238.	6.6	102
24	Ultrafine grained titanium sheets with high strength and high corrosion resistance. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 8479-8485.	5.6	95
25	Difference in the Hot Compressive Behavior and Processing Maps between the As-cast and Homogenized Al-Zn-Mg-Cu (7075) Alloys. Journal of Materials Science and Technology, 2016, 32, 660-670.	10.7	95
26	Finite element analysis of severe deformation in Mgâ€“3Alâ€“1Zn sheets through differential-speed rolling with a high speed ratio. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 454-455, 570-574.	5.6	83
27	Microstructure of the post-ECAP aging processed 6061 Al alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 464, 23-27.	5.6	83
28	Annealing effects on the corrosion resistance of ultrafine-grained pure titanium. Corrosion Science, 2014, 89, 331-337.	6.6	80
29	High-temperature deformation mechanisms and processing maps of equiatomic CoCrFeMnNi high-entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 756, 528-537.	5.6	79
30	Superplastic flow in a Zr65Al10Ni10Cu15 metallic glass crystallized during deformation in a supercooled liquid region. Scripta Materialia, 2003, 49, 1067-1073.	5.2	77
31	Mechanical properties and microstructure of ultra fine-grained copper prepared by a high-speed-ratio differential speed rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 506, 71-79.	5.6	67
32	The effect of the addition of multiwalled carbon nanotubes on the uniform distribution of TiC nanoparticles in aluminum nanocomposites. Scripta Materialia, 2014, 72-73, 25-28.	5.2	67
33	Effect of speed-ratio on microstructure, and mechanical properties of Mgâ€“3Alâ€“1Zn alloy, in differential speed rolling. Journal of Alloys and Compounds, 2011, 509, 8510-8517.	5.5	65
34	Grain size and texture control of Mgâ€“3Alâ€“1Zn alloy sheet using a combination of equal-channel angular rolling and high-speed-ratio differential speed-rolling processes. Scripta Materialia, 2009, 60, 897-900.	5.2	64
35	Ultrafine-grained Mgâ€“9Liâ€“1Zn alloy sheets exhibiting low temperature superplasticity. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 516, 17-22.	5.6	64
36	Effect of the speed ratio on grain refinement and texture development in pure Ti during differential speed rolling. Scripta Materialia, 2011, 64, 49-52.	5.2	64

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37	Realization of low-temperature superplasticity in Mgâ€“Alâ€“Zn alloy sheets processed by differential speed rolling. Scripta Materialia, 2007, 57, 755-758.	5.2	62
38	Exceptionally high strength in Mgâ€“3Alâ€“1Zn alloy processed by high-ratio differential speed rolling. Scripta Materialia, 2011, 65, 1105-1108.	5.2	62
39	Effect of post equal-channel-angular-pressing aging on the modified 7075 Al alloy containing Sc. Journal of Alloys and Compounds, 2008, 450, 222-228.	5.5	61
40	Superplastic behavior of a fine-grained ZK60 magnesium alloy processed by high-ratio differential speed rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 527, 322-327.	5.6	60
41	Ultrafine-grained Mgâ€“Znâ€“Zr alloy with high strength and high-strain-rate superplasticity. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 538, 374-385.	5.6	56
42	Effects of Mg concentration on the quasi-superplasticity of coarse-grained Al-Mg alloys. Scripta Materialia, 1997, 37, 1351-1358.	5.2	54
43	Enhancement of the strain hardening ability in ultrafine grained Mg alloys with high strength. Scripta Materialia, 2012, 67, 689-692.	5.2	53
44	Mechanical properties and Hall-Petch relationship of the extruded Mg-Zn-Y alloys with different volume fractions of icosahedral phase. Journal of Alloys and Compounds, 2019, 770, 589-599.	5.5	52
45	Significant strengthening in superlight Al-Mg alloy with an exceptionally large amount of Mg (13â€‰wt%) after cold rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 744, 36-44.	5.6	52
46	Texture and mechanical properties of ultrafine-grained Mgâ€“3Alâ€“1Zn alloy sheets prepared by high-ratio differential speed rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 874-879.	5.6	51
47	Enhanced corrosion resistance of high strength Mgâ€“3Alâ€“1Zn alloy sheets with ultrafine grains in a phosphate-buffered saline solution. Corrosion Science, 2013, 74, 139-148.	6.6	50
48	Microstructures and mechanical properties of Mgâ€“Alâ€“Znâ€“Ca alloys fabricated by high frequency electromagnetic casting method. Journal of Materials Science, 2009, 44, 47-54.	3.7	47
49	Magnesium matrix composites fabricated by using accumulative roll bonding of magnesium sheets coated with carbon-nanotube-containing aluminum powders. Scripta Materialia, 2012, 67, 129-132.	5.2	47
50	High-temperature deformation behavior of carbon nanotube (CNT)-reinforced aluminum composites and prediction of their high-temperature strength. Composites Part A: Applied Science and Manufacturing, 2014, 67, 308-315.	7.6	47
51	Plastic forming of the equal-channel angular pressing processed 6061 aluminum alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 487, 360-368.	5.6	45
52	Creep behavior of AZ31 magnesium alloy in low temperature range between 423ÂK and 473ÂK. Journal of Materials Science, 2007, 42, 6171-6176.	3.7	42
53	The effect of Al to high-temperature deformation mechanisms and processing maps of Al0.5CoCrFeMnNi high entropy alloy. Journal of Alloys and Compounds, 2019, 802, 152-165.	5.5	42
54	Dynamic recrystallization and hot deformation mechanisms of a eutectic Al0.7CoCrFeMnNi high-entropy alloy. Journal of Alloys and Compounds, 2021, 871, 159488.	5.5	41

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55	Significant effects of adding trace amounts of Ti on the microstructure and corrosion properties of Mgâ€“6Alâ€“1Zn magnesium alloy. Journal of Alloys and Compounds, 2014, 614, 49-55.	5.5	40
56	Microstructural instability and strength of an AZ31 Mg alloy after severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 385, 300-308.	5.6	40
57	Temperature and strain rate effect incorporated failure criteria for sheet forming of magnesium alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 488, 468-474.	5.6	38
58	Effects of large amounts of Mg (5â€“13â€¯wt%) on hot compressive deformation behavior and processing maps of Al-Mg alloys. Journal of Alloys and Compounds, 2019, 788, 1282-1299.	5.5	38
59	Microstructure tailoring of Al0.5CoCrFeMnNi to achieve high strength and high uniform strain using severe plastic deformation and an annealing treatment. Journal of Materials Science and Technology, 2021, 71, 228-240.	10.7	37
60	Superplastic gas pressure forming of fine-grained AZ61 magnesium alloy sheet. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2004, 372, 15-20.	5.6	36
61	Synthesis of ultra high strength Alâ€“Mgâ€“Si alloy sheets by differential speed rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 520, 23-28.	5.6	35
62	Synthesis of high-strain-rate superplastic magnesium alloy sheets using a high-ratio differential speed rolling technique. Scripta Materialia, 2010, 63, 772-775.	5.2	35
63	Restoration of thoracic kyphosis in the hypokyphotic spine: a comparison between multiple-hook and segmental pedicle screw fixation in adolescent idiopathic scoliosis. Journal of Spinal Disorders, 1999, 12, 489-95.	1.1	34
64	The effect of addition of Sn to copper on hot compressive deformation mechanisms, microstructural evolution and processing maps. Journal of Materials Research and Technology, 2020, 9, 749-761.	5.8	33
65	Fabrication of ultrafine-grained Mgâ€“3Alâ€“1Zn magnesium alloy sheets using a continuous high-ratio differential speed rolling technique. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 594, 189-192.	5.6	32
66	Mg-Ca binary alloy sheets with Ca contents of â‰¤1 wt.% with high corrosion resistance and high toughness. Corrosion Science, 2015, 98, 372-381.	6.6	32
67	Effect of thermal treatment on the bio-corrosion and mechanical properties of ultrafine-grained ZK60 magnesium alloy. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 51, 291-301.	3.1	32
68	The improvement of corrosion resistance of AZ91 magnesium alloy through development of dense and tight network structure of Al-rich Î± phase by addition of a trace amount of Ti. Journal of Alloys and Compounds, 2017, 696, 736-745.	5.5	32
69	Computational analysis of effect of route on strain uniformity in equal channel angular extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 412, 287-297.	5.6	31
70	Hot compression characteristics and processing maps of a cast Mgâ€“9.5Znâ€“2.0Y alloy with icosahedral quasicrystalline phase. Journal of Alloys and Compounds, 2015, 644, 645-653.	5.5	31
71	Microstructure and superplasticity of Mgâ€“Alâ€“Ca electromagnetic casting alloys after hot extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 494, 391-396.	5.6	30
72	Formation of a nanocomposite-like microstructure in Mgâ€“6Alâ€“1Zn alloy. Scripta Materialia, 2012, 66, 590-593.	5.2	30

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73	Microstructure and superplasticity of the as-cast Mgâ€“9Alâ€“1Zn magnesium alloy after high-ratio differential speed rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 677, 332-339.	5.6	30
74	Hot deformation behavior and processing map of a Sn0.5CoCrFeMnNi high entropy alloy with dual phases. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 801, 140394.	5.6	30
75	Refinement of the icosahedral quasicrystalline phase and the grain size of Mgâ€“9.25Znâ€“1.66Y alloy by high-ratio differential speed rolling. Scripta Materialia, 2015, 103, 49-52.	5.2	29
76	Microstructures and mechanical properties of the non-equiatomic FeMnNiCoCr high entropy alloy processed by differential speed rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 727, 38-42.	5.6	29
77	High-strength Mgâ€“Alâ€“Ca alloy with ultrafine grain size sensitive to strain rate. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 2062-2066.	5.6	28
78	Prestressing effect of cold-drawn short NiTi SMA fibres in steel reinforced mortar beams. Smart Materials and Structures, 2016, 25, 085041.	3.5	28
79	Pullout behavior of superelastic SMA fibers with various end-shapes embedded in cement mortar. Construction and Building Materials, 2018, 167, 605-616.	7.2	28
80	Characterization of the microstructures and the shape memory properties of the Fe-Mn-Si-Cr-Ni-C shape memory alloy after severe plastic deformation by differential speed rolling and subsequent annealing. Materials Characterization, 2018, 136, 12-19.	4.4	27
81	Effect of refinement of grains and icosahedral phase on hot compressive deformation and processing maps of Mg-Zn-Y magnesium alloys with different volume fractions of icosahedral phase. Journal of Materials Science and Technology, 2019, 35, 181-191.	10.7	27
82	Embedding Nanofibers in a Polymer Matrix by Polymerization of Organogels Comprising Heterobifunctional Organogelators and Monomeric Solvents. Chemistry of Materials, 2008, 20, 5532-5540.	6.7	26
83	Enhanced superplasticity and diffusional creep in ultrafine-grained Mgâ€“6Alâ€“1Zn alloy with high thermal stability. Scripta Materialia, 2013, 68, 179-182.	5.2	26
84	Development of the highly corrosion resistant AZ31 magnesium alloy by the addition of a trace amount of Ti. Journal of Alloys and Compounds, 2016, 664, 25-37.	5.5	26
85	Effect of microalloying by Ca on the microstructure and mechanical properties of as-cast and wrought Mgâ€“Mg2Si composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 820, 141574.	5.6	26
86	Microstructure and superplasticity of AZ31 sheet fabricated by differential speed rolling. Journal of Alloys and Compounds, 2009, 483, 279-282.	5.5	25
87	Superplasticity and superplastic forming of Mgâ€“Alâ€“Zn alloy sheets fabricated by strip casting method. Journal of Alloys and Compounds, 2008, 464, 197-204.	5.5	24
88	Failure prediction of magnesium alloy sheets deforming at warm temperatures using the Zener-Holloman parameter. Mechanics of Materials, 2010, 42, 293-303.	3.2	24
89	Critical review of superplastic magnesium alloys with emphasis on tensile elongation behavior and deformation mechanisms. Journal of Magnesium and Alloys, 2022, 10, 1133-1153.	11.9	24
90	Deformation behavior of powder-metallurgy processed high-strain-rate superplastic 20%SiCp/2124 Al composite in a wide range of temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 269, 142-151.	5.6	23

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91	The effect of 0.5Âwt.% Ca addition on the hot compressive characteristics and processing maps of the cast and extruded Mgâ€“3Alâ€“1Zn alloys. Journal of Alloys and Compounds, 2016, 658, 157-169.	5.5	23
92	Superplastic behavior of an ultrafine-grained Mg-13Zn-1.55Y alloy with a high volume fraction of icosahedral phases prepared by high-ratio differential speed rolling. Journal of Materials Science and Technology, 2017, 33, 919-925.	10.7	23
93	The hot compressive deformation behavior of cast Mg-Gd-Y-Zn-Zr alloys with and without LPSO phase in their initial microstructures. Journal of Magnesium and Alloys, 2022, 10, 2901-2917.	11.9	23
94	Particle weakening in superplastic SiC/2124 Al composites at high temperature. Acta Materialia, 2000, 48, 1763-1774.	7.9	22
95	Superplastic deformation behavior of spray-deposited hyper-eutectic Alâ€“25Si alloy. Journal of Alloys and Compounds, 2000, 308, 237-243.	5.5	22
96	Dispersion of TiC particles in an in situ aluminum matrix composite by shear plastic flow during high-ratio differential speed rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 559, 325-332.	5.6	22
97	Stress corrosion cracking of high-strength AZ31 processed by high-ratio differential speed rolling. Journal of Magnesium and Alloys, 2015, 3, 271-282.	11.9	22
98	Analysis of strain uniformity during multi-pressing in equal channel angular extrusion. Scripta Materialia, 2005, 53, 293-298.	5.2	21
99	Superplastic gas pressure forming of Zr65Al10Ni10Cu15 metallic glass sheets fabricated by squeeze mold casting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 428, 205-210.	5.6	21
100	Estimation of Fracture Toughness of Metallic Materials Using Instrumented Indentation: Critical Indentation Stress and Strain Model. Experimental Mechanics, 2017, 57, 1013-1025.	2.0	21
101	Comparison of Hot Deformation Behavior Characteristics Between As-Cast and Extruded Al-Zn-Mg-Cu (7075) Aluminum Alloys with a Similar Grain Size. Materials, 2019, 12, 3807.	2.9	21
102	Superplastic deformation and crystallization behavior of Cu54Ni6Zr22Ti18 metallic-glass sheet. Intermetallics, 2006, 14, 1391-1396.	3.9	20
103	The effect of volume fraction and dispersion of icosahedral phase particles on the strength and work hardening of Mg-Zn-Y alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 684, 284-291.	5.6	20
104	Effect of I(Mg3YZn6)-, W(Mg3Y2Zn3)- and LPSO(Mg12ZnY)-phases on tensile work-hardening and fracture behaviors of rolled Mgâ€“Yâ€“Zn alloys. Journal of Materials Research and Technology, 2019, 8, 2316-2325.	5.8	20
105	Explanation for deviations from the Hallâ€“Petch Relation based on the creep behavior of an ultrafine-grained Mgâ€“Li alloy with low diffusivity. Scripta Materialia, 2009, 61, 652-655.	5.2	19
106	Achieving ultrafine grained Fe-Mn-Si shape memory alloys with enhanced shape memory recovery stresses. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 701, 285-288.	5.6	19
107	Operation of solute-drag creep in an AlCoCrFeMnNi high-entropy alloy and enhanced hot workability. Journal of Alloys and Compounds, 2020, 824, 153829.	5.5	19
108	Low-cycle fatigue behavior and deformation mechanisms of a dual-phase Al0.5CoCrFeMnNi high-entropy alloy. International Journal of Fatigue, 2022, 163, 107075.	5.7	19

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109	High strain rate superplastic behaviour of powder-metallurgy processed 7475Al+0.7Zr alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1999, 260, 170-177.	5.6	18
110	Hot compression behavior of the 1 wt% calcium containing Mgâ€“8Alâ€“0.5Zn (AZ80) alloy fabricated using electromagnetic casting technology. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 615, 222-230.	5.6	18
111	Verification on the extreme scalability of STT-MRAM without loss of thermal stability below 15 nm MTJ cell. , 2014, , .		18
112	Effect of Ca and CaO on the microstructure and hot compressive deformation behavior of Mgâ€“9.5Znâ€“2.0Y alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 648, 146-156.	5.6	18
113	Effect of the volume fraction of the icosahedral phase on the microstructures, hot compressive behaviors and processing maps of Mg-Zn-Y alloys. Journal of Alloys and Compounds, 2017, 725, 711-723.	5.5	18
114	Prestressing effect of embedded Fe-based SMA wire on the flexural behavior of mortar beams. Engineering Structures, 2021, 227, 111472.	5.3	18
115	Large strain hardening in Tiâ€“V carbon steel processed by equal channel angular pressing. Materials Letters, 2001, 51, 177-182.	2.6	17
116	The effect of die geometry on the double shear extrusion by parametric FVM simulation. Scripta Materialia, 2004, 51, 1117-1122.	5.2	17
117	The significant effect of adding trace amounts of Ti on the high-temperature deformation behavior of fine-grained Mgâ€“6Alâ€“1Zn magnesium alloys. Journal of Alloys and Compounds, 2014, 617, 352-358.	5.5	17
118	Pronounced yield drop phenomenon at high temperatures in Al-Mg alloys with high contents of Mg (5â€“13â€¯wt%). Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 743, 590-596.	5.6	17
119	Calculation and construction of deformation mechanism maps and processing maps for CoCrFeMnNi and Al0.5CoCrFeMnNi high-entropy alloys. Journal of Alloys and Compounds, 2021, 869, 159256.	5.5	17
120	Superplasticity in PM 6061 Al alloy and elimination of strengthening effect by reinforcement in superplastic PM aluminum composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2001, 298, 166-173.	5.6	16
121	Mechanical Properties and Texture Evolution in ECAP Processed AZ61 Mg Alloys. Materials Science Forum, 2003, 419-422, 201-206.	0.3	16
122	Analysis of deformation behavior in 3D during equal channel angular extrusion. Journal of Materials Processing Technology, 2006, 176, 260-267.	6.3	16
123	Forging of Mgâ€“3Alâ€“1Znâ€“1Ca alloy prepared by high-frequency electromagnetic casting. Materials & Design, 2009, 30, 4120-4125.	5.1	16
124	Strength enhancement by shear-flow assisted dispersion of carbon nanotubes in aluminum matrix composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 570, 102-105.	5.6	16
125	Corrosion behavior of magnesium powder fabricated by high-energy ball milling and spark plasma sintering. Metals and Materials International, 2014, 20, 1095-1101.	3.4	16
126	Flame-resistant Ca-containing AZ31 magnesium alloy sheets with good mechanical properties fabricated by a combination of strip casting and high-ratio differential speed rolling methods. Metals and Materials International, 2015, 21, 374-381.	3.4	16

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127	Shape memory and superelasticity of nanograined Ti-51.2â€¯at.% Ni alloy processed by severe plastic deformation via high-ratio differential speed rolling. Materials Characterization, 2018, 145, 284-293.	4.4	16
128	Grain size and temperature effect on the tensile behavior and deformation mechanisms of non-equiatomic Fe41Mn25Ni24Co8Cr2 high entropy alloy. Journal of Materials Science and Technology, 2020, 42, 190-202.	10.7	16
129	Strain hardening behavior and strengthening mechanism in Mg-rich Alâ€“Mg binary alloys subjected to aging treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 794, 139862.	5.6	16
130	Microstructure and tensile properties of magnesium nanocomposites fabricated using magnesium chips and carbon black. Journal of Magnesium and Alloys, 2020, 8, 860-872.	11.9	16
131	Construction of processing maps combined with deformation mechanism maps using creep deformation equations. Journal of Materials Research and Technology, 2020, 9, 13434-13449.	5.8	16
132	Enhanced ductility and deformation mechanisms of ultrafine-grained Alâ€“Mgâ€“Si alloy in sheet form at warm temperatures. Scripta Materialia, 2009, 61, 125-128.	5.2	15
133	Ductility enhancement through texture control and strength restoration through subsequent age-hardening in Mgâ€“Znâ€“Zr alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 597, 157-163.	5.6	15
134	Hot compression behavior of the ignition-resistant Mgâ€“5Yâ€“2.5Znâ€“1.2Ca alloy with long-period stacking ordered structures. Journal of Alloys and Compounds, 2015, 632, 417-428.	5.5	15
135	Warm Temperature Deformation Behavior and Processing Maps of 5182 and 7075 Aluminum Alloy Sheets with Fine Grains. Metals and Materials International, 2018, 24, 455-463.	3.4	15
136	Variation of true strain-rate sensitivity exponent as a function of plastic strain in the PM processed superplastic 7475Al+0.7Zr alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 277, 134-142.	5.6	14
137	Correlation between crystallization and strain hardening during homogeneous deformation of Cu54Ni6Zr22Ti18 bulk metallic glass. Intermetallics, 2007, 15, 282-287.	3.9	14
138	Achieving Low Temperature Superplasticity from Caâ€Containing Magnesium Alloy Sheets. Advanced Engineering Materials, 2009, 11, 525-529.	3.5	14
139	A strategy for creating ultrafine-grained microstructure in magnesium alloy sheets. Materials Letters, 2010, 64, 647-649.	2.6	14
140	Retardation of grain growth in Mgâ€“3Alâ€“1Zn alloy processed by strip-casting method. Journal of Alloys and Compounds, 2009, 482, 106-109.	5.5	13
141	Molecular imprinting into organogel nanofibers. Soft Matter, 2011, 7, 4160.	2.7	13
142	Enhancement of recovery stresses of the Ni-50.2Ti alloy by severe plastic deformation using a high-ratio differential speed rolling technique. Scripta Materialia, 2016, 124, 95-98.	5.2	13
143	Constitutive modeling and understanding of the hot compressive deformation of Mgâ€“9.5Znâ€“2.0Y magnesium alloy with reduced number of strain-dependent constitutive parameters. Metals and Materials International, 2017, 23, 660-672.	3.4	13
144	Successful transition from low-temperature superplasticity to high-strain-rate superplasticity with increasing temperature in anÂultrafine-grained Mgâ€“Yâ€“Znâ€“Zr alloy. Journal of Alloys and Compounds, 2020, 817, 153298.	5.5	13

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145	Additive manufacturing of a porous titanium layer structure Ti on a Coâ€“Cr alloy for manufacturing cementless implants. Journal of Materials Research and Technology, 2021, 10, 250-267.	5.8	13
146	High strain rate superplasticity of an ultra-fine grained Al-Ti-Fe alloy. Scripta Materialia, 1998, 40, 223-228.	5.2	12
147	High-strain-rate superplasticity of Zr65Al10Ni10Cu15 sheet fabricated by squeeze casting method. Intermetallics, 2006, 14, 377-381.	3.9	12
148	Importance of diffusional creep in fine grained Mgâ€“3Alâ€“1Zn alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 580, 133-141.	5.6	12
149	Low temperature superplasticity of ultrafine grained Mgâ€“9.25Znâ€“1.66Y alloy with an icosahedral quasicrystalline phase. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 643, 47-50.	5.6	12
150	Effect of Post-annealing and Strong Deformation Process on the Mechanical and Corrosion Properties of a Mg-Mn alloy for Biomedical Application. Journal of the Korean Physical Society, 2018, 72, 692-698.	0.7	12
151	Enhanced Hot Workability and Post-Hot Deformation Microstructure of the As-Cast Al-Zn-Cu-Mg Alloy Fabricated by Use of a High-Frequency Electromagnetic Casting with Electromagnetic Stirring. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 3523-3539.	2.2	11
152	Achievement of nearly fully amorphous structure from NiTi alloys via differential speed rolling at 268ÂK and effect of annealing on superelasticity. Materials Characterization, 2020, 169, 110584.	4.4	11
153	Austenite grain size effect on recovery stress and recovery strain of Fe-Mn-Si-Cr-Ni-0.01C alloy severely plastically deformed by differential speed rolling. Materials Characterization, 2021, 175, 111097.	4.4	11
154	Effect of roll speed ratio on the texture and microstructural evolution of an FCC high-entropy alloy during differential speed rolling. Journal of Materials Science and Technology, 2022, 111, 152-166.	10.7	11
155	Superplastic behavior of a kappa carbide material (Fe₃AlC_{<i>x</i>}). Journal of Materials Research, 1997, 12, 2317-2324.	2.6	10
156	On Coble creep in Mgâ€“9Alâ€“1Zn alloy with ultrafine-grained microstructure. Scripta Materialia, 2008, 58, 659-662.	5.2	10
157	Microstructure and Strengthening Mechanisms of Carbon Nanotube Reinforced Magnesium Matrix Composites Fabricated by Accumulative Roll Bonding. Journal of Korean Institute of Metals and Materials, 2014, 52, 561-572.	1.0	10
158	Superplasticity in a relatively coarse-grained AZ61 magnesium alloy. Journal of Materials Science Letters, 2001, 20, 1635-1637.	0.5	9
159	Enhanced superplasticity of 1 wt.%Ca-AZ80 Mg alloy with ultrafine grains. Materials Letters, 2010, 64, 1759-1762.	2.6	9
160	Examination of high-temperature mechanisms and behavior under compression and processing maps of pure copper. Journal of Materials Research and Technology, 2020, 9, 960-968.	5.8	9
161	Easy construction of processing maps for metallic alloys using a flow instability criterion based on power-law breakdown. Journal of Materials Research and Technology, 2020, 9, 5134-5143.	5.8	9
162	Uniaxial compressive cyclic behavior of mortar reinforced with crimped or dog-bone-shaped SMA fibers. Composite Structures, 2021, 262, 113600.	5.8	9

#	Article	IF	Citations
163	High strain rate superplasticity in powder metallurgy aluminium alloy 6061 + 20 vol.-%SiC_pcomposite with relatively large particle size. Materials Science and Technology, 2000, 16, 675-680.	1.6	8
164	Superplasticity in fine-grained AZ61 magnesium alloy. Metals and Materials International, 2000, 6, 255-259.	0.2	8
165	Interface structure and solute segregation behavior in SiC/2124 and SiC/6061 Al composites exhibiting high-strain-rate superplasticity. Journal of Materials Research, 2001, 16, 2429-2435.	2.6	8
166	Micro-forming of Zr65Al10Ni10Cu15 metallic glasses under superplastic condition. Journal of Alloys and Compounds, 2009, 483, 283-285.	5.5	8
167	Hot-air forming of Al-Mg-Cr alloy and prediction of failure based on Zener-Holloman parameter. Metals and Materials International, 2010, 16, 895-903.	3.4	8
168	High-strain-rate solute drag creep in a Cu-22%Sn alloy (Cu17Sn3) with near peritectic composition. Materials Characterization, 2020, 164, 110325.	4.4	8
169	The Effect of Grain Size on the Threshold Stress for Superplastic Flow in Aluminum Alloys. Materials Transactions, JIM, 1999, 40, 760-764.	0.9	7
170	Compressive behaviour capable of predicting hot tensile ductility behaviour in a 0Â·1%Câ€"Mn steel. Materials Science and Technology, 2001, 17, 409-414.	1.6	7
171	Factors influencing tensile ductility of ultrafine-grained Mgâ€"3Alâ€"1Zn alloy sheet at elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 5984-5989.	5.6	6
172	Investigation of MRS and SMA Dampers Effects on Bridge Seismic Resistance Employing Analytical Models. International Journal of Steel Structures, 2018, 18, 1325-1335.	1.3	6
173	High-strain-rate superplastic deformation behavior of a powder metallurgy-processed 2124 Al alloy. Journal of Materials Science, 2000, 35, 2779-2784.	3.7	5
174	Mechanical Property - Microstructure Relations in Iron-Carbon Alloys from 1.0 to 5.2% Carbon. Materials Science Forum, 2003, 426-432, 11-18.	0.3	5
175	Grain Refinement and Texture Evolution in AZ31 Alloy during ECAP Process and Their Effects on Mechanical Properties. Materials Science Forum, 2005, 475-479, 549-554.	0.3	5
176	Two different types of deformation behaviors in ultrafine grained Mg alloys at high temperatures and development of the generalized constitutive equation for describing their deformation behavior. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 613, 264-273.	5.6	5
177	Design of Mg-6wt%Al alloy with high toughness and corrosion resistance prepared by mechanical alloying and spark plasma sintering. Materials Characterization, 2019, 158, 109995.	4.4	5
178	Enhancement of compressive strength and strain ductility of SMA fiber reinforced concrete considering fiberâ€™s aspect ratios. Construction and Building Materials, 2022, 345, 128346.	7.2	5
179	Superplastic gas-pressure deformation of iron carbide sheet. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1995, 194, 69-76.	5.6	4
180	Superplastic behavior of PM SiCp/6061 aluminum alloy composites at high strain rates. Metals and Materials International, 2002, 8, 37-44.	3.4	4

#	Article	IF	Citations
181	Mechanical Properties and Texture Evolution of AZ31 Mg Alloy during Equal Channel Angular Pressing. Materials Science Forum, 2005, 475-479, 545-548.	0.3	4
182	Electrical conduction of polyimide films prepared from polyamic acid (PAA) and pre-imidized polyimide (PI) solution. E-Polymers, 2008, 8, .	3.0	4
183	Microstructural Evolution and Electrochemical Properties of HRDSR AZ61-<i>X</i> (<i>X</i> = Ca, Ti) Alloys. Journal of Nanoscience and Nanotechnology, 2018, 18, 6081-6089.	0.9	4
184	A Springback Prediction Model for Warm Forming of Aluminum Alloy Sheets Using Tangential Stresses on a Cross-Section of Sheet. Metals, 2018, 8, 257.	2.3	4
185	Fabrication of a thin open-cell Ni foam sheet with a high specific strength and moderate porosity using severe plastic deformation via differential speed rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 750, 7-13.	5.6	4
186	Accelerated Formation of an Ultrafine-Grained Microstructure in Closed-Cell Aluminum Foam after Extrusion and Differential Speed Rolling. Materials Transactions, 2017, 58, 291-293.	1.2	4
187	Biomechanics of Posterior Instrumentation for Spinal Arthrodesis. , 2016, , 437-467.		4
188	Pedicle Screw Fixation in Thoracic or Thoracolumbar Burst Fractures. , 2016, , 405-427.		4
189	Analysis on the anelasticity of a superplastic Znâ€"22% Al eutectoid. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 322, 159-166.	5.6	3
190	Hardening by Crystallization During Superplastic Flow in a Powder-metallurgy-processed Zr65Al10Ni10Cu15 Glass Metallic Alloy. Journal of Materials Research, 2005, 20, 1447-1455.	2.6	3
191	Effect of the Angle-Dependent Gilbert Damping Constant on the Magnetization Dynamics Induced by a Spin Polarized Current. IEEE Transactions on Magnetics, 2006, 42, 3207-3209.	2.1	3
192	Effect of Post-ECAP Aging on Mechanical Properties of Age-Hardenable Aluminum Alloys. Solid State Phenomena, 2007, 124-126, 1437-1440.	0.3	3
193	Preparation of smectic layered polymer networks using dide chain liquid crystalline polymers having latent reactive monomeric units. Macromolecular Research, 2009, 17, 84-90.	2.4	3
194	Title is missing!. Journal of Materials Science Letters, 2000, 19, 77-79.	0.5	2
195	High-strain-rate Superplastic Flow in 6061 Al Composite Enhanced by Liquid Phase. Journal of Materials Research, 2002, 17, 65-74.	2.6	2
196	Superplastic Deformation Behavior in the Commercial AZ61 Mg Alloy during Biaxial Gas-Pressure Forming. Materials Science Forum, 2003, 419-422, 539-544.	0.3	2
197	The Effect of Differential Speed Rolling on Microstructure and Mechanical Properties of an AZ31 Alloy Sheet. Solid State Phenomena, 2006, 116-117, 235-238.	0.3	2
198	Annealing Effects on Mechanical Properties and Microstructure of AZ31 Alloy Sheet Differential-Speed-Rolled at Low Temperatures. Materials Science Forum, 2007, 558-559, 213-216.	0.3	2

#	Article	IF	Citations
199	Vortex dynamics in submicron exchangeâ€biased disks. Physica Status Solidi (B): Basic Research, 2007, 244, 4491-4494.	1.5	2
200	Domain wall pinning by alternating materials in currentâ€induced domain wall motion. Physica Status Solidi (B): Basic Research, 2007, 244, 4439-4442.	1.5	2
201	Characteristics and interrelation of recovery stress and recovery strain of an ultrafine-grained Ni-50.2Ti alloy processed by high-ratio differential speed rolling. Smart Materials and Structures, 2017, 26, 035005.	3.5	2
202	Processing maps (with flow instability criterion based on power-law breakdown) integrated into finite element simulations for evaluating the hot workability of 7075 aluminum alloy. Materials Today Communications, 2021, 27, 102254.	1.9	2
203	Microstructural and Texture Evolution in Pure Niobium during Severe Plastic Deformation by Differential Speed Rolling. Materials, 2022, 15, 752.	2.9	2
204	Effect of ac on current-induced domain wall motion. Journal of Applied Physics, 2007, 101, 09A504.	2.5	1
205	Effect of aspect ratio of nanostrip on transformation of transverse domain wall due to adiabatic spin torque. Physica Status Solidi (B): Basic Research, 2007, 244, 4460-4463.	1.5	1
206	Thickness Reduction Effect in Obtaining Ultrafine-Grained Microstructure from Oxygen-Free Copper Using High-Ratio Differential Speed Rolling. Journal of Nanoscience and Nanotechnology, 2011, 11, 1472-1475.	0.9	1
207	Class I type creep behavior of coarse-grained Al0.5CoCrFeMnNi high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 845, 143239.	5.6	1
208	Superplastic Properties of Hipped and Extruded Iron Carbide. Materials Research Society Symposia Proceedings, 1990, 196, 359.	0.1	0
209	Tensile ductility behaviour of fine-grained alumina at elevated temperature. Journal of Materials Science, 1998, 33, 1319-1324.	3.7	0
210	Blanking of Bulk Amorphous Alloy Sheets Fabricated by a Squeeze Casting Method under Hydraulics Pressure. Journal of Metastable and Nanocrystalline Materials, 2005, 24-25, 85-88.	0.1	0
211	Crystallization during Superplastic Deformation in a Zr₆₅Al₁₀Ni₁₀Cu₁₅ Glass Metallic Alloy. Materials Science Forum, 2005, 475-479, 2981-2986.	0.3	0
212	Development of Aluminum Suspension by Hot Air Forming Process. , 2006, , .		0
213	Micromagnetic study on the threshold current density for continuous domain wall motion. , 2006, , .		0
214	The Influence of Rolling Parameters on Microstructure and Mechanical Properties of the As-Rolled AZ31 Magnesium Alloy Sheet. Materials Science Forum, 2007, 539-543, 1675-1678.	0.3	0
215	Temperature Dependent Microstructure and Mechanical Behavior in AZ31 Alloy Processed by an Asymmetric Rolling. Advanced Materials Research, 2007, 26-28, 373-376.	0.3	0
216	Experimental Study of Thermally Activated Magnetization Reversal With a Spin-Transfer Torque in a Nanowire. IEEE Transactions on Magnetics, 2008, 44, 2531-2534.	2.1	0

#	Article	IF	Citations
217	Continuous Casting of Magnesium Alloy Billet Using Electromagnetic Techniques. Materials Science Forum, 2010, 654-656, 787-790.	0.3	0
218	Fabrication and Evaluation of Nanostructure Al-SiC_p Composite by Accumulative Roll-Bonding. Journal of Nanoscience and Nanotechnology, 2011, 11, 7451-7455.	0.9	0
219	OS19-3-1 Benefits of having ultrafine grains in Mg alloys. The Abstracts of ATEM International Conference on Advanced Technology in Experimental Mechanics Asian Conference on Experimental Mechanics, 2011, 2011.10, _OS19-3-1-.	0.0	0