

Bo Song

List of Publications by Year in descending order

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117
papers

3,541
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117571

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times ranked

1489
citing authors

#	ARTICLE	IF	CITATIONS
1	Promoting hybrid twins structure to reduce yield asymmetry of rolled AZ31 plates by combining side-rolling and torsion. <i>Journal of Magnesium and Alloys</i> , 2023, 11, 2096-2105.	5.5	11
2	Four new orientation relationships of Mg ₁₇ Al ₁₂ phase with magnesium matrix in Mg-8Al-0.5Zn alloys. <i>Journal of Magnesium and Alloys</i> , 2023, 11, 4689-4695.	5.5	4
3	The effects of orientation control via tension-compression on microstructural evolution and mechanical behavior of AZ31 Mg alloy sheet. <i>Journal of Magnesium and Alloys</i> , 2022, 10, 411-422.	5.5	58
4	Effect of Hot Rolling and Annealing on Phase Component, Recrystallization, and Mechanical Properties of TC21 Titanium Alloy. <i>Journal of Materials Engineering and Performance</i> , 2022, 31, 2496-2508.	1.2	4
5	Effect of Precipitates in Mg-Sm Alloys on Their Deformation Behavior and Yield Asymmetry. <i>Advanced Engineering Materials</i> , 2022, 24, .	1.6	2
6	Role of Al in the Solution Strengthening of Mg-Al Binary Alloys. <i>Metals</i> , 2022, 12, 84.	1.0	6
7	Microstructure and properties of Al-coating on AZ31 magnesium alloy prepared by pack-cementation. <i>Transactions of Nonferrous Metals Society of China</i> , 2022, 32, 493-502.	1.7	5
8	Effect of free-end torsion on microstructure and mechanical properties of AZ31 bars with square section. <i>Journal of Materials Science and Technology</i> , 2021, 69, 20-31.	5.6	11
9	Triaxial tension-induced damage behavior of nanocrystalline NiTi alloy and its dependence on grain size. <i>Journal of Materials Science and Technology</i> , 2021, 77, 90-99.	5.6	19
10	Revealing the Texture Evolution and Compressive Anisotropy in Free-End Twisted AZ31 Rods. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 1157-1166.	1.2	3
11	Effect of pre-rolling path on mechanical properties of rolled ZK60 alloys. <i>Transactions of Nonferrous Metals Society of China</i> , 2021, 31, 1322-1338.	1.7	9
12	Facile synthesis of porous waist drum-like γ -Fe ₂ O ₃ nanocrystals as electrode materials for supercapacitor application. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 18777-18789.	1.1	2
13	The Effects of Annealing at Different Temperatures on Microstructure and Mechanical Properties of Cold-Rolled Al _{0.3} CoCrFeNi High-Entropy Alloy. <i>Metals</i> , 2021, 11, 940.	1.0	13
14	Evaluation of Twinning Behavior in Rolling of Mg Alloys with Three Kinds of Textures by a Generalized Schmid Factor. <i>Metals and Materials International</i> , 2020, 26, 1366-1372.	1.8	9
15	Improving Strength and Formability of Rolled AZ31 Sheet by Two-Step Twinning Deformation. <i>Jom</i> , 2020, 72, 2551-2560.	0.9	13
16	Dataset for microstructure and mechanical properties of (CrCoNi) ₉₇ Al _{1.5} Ti _{1.5} medium entropy alloy twisted by free-end-torsion at room and cryogenic temperatures. <i>Data in Brief</i> , 2020, 33, 106333.	0.5	1
17	Microstructure and mechanical properties of (CrCoNi) ₉₇ Al _{1.5} Ti _{1.5} medium entropy alloy twisted by free-end-torsion at room and cryogenic temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 797, 140101.	2.6	10
18	Influence of Aging Prior to Extrusion on the Microstructure and Mechanical Properties of an Extruded AZ91 Alloy. <i>Advanced Engineering Materials</i> , 2020, 22, 2000201.	1.6	7

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19	Influence of texture distribution in magnesium welds on their non-uniform mechanical behavior: A CPFEM study. <i>Journal of Materials Science and Technology</i> , 2020, 46, 168-176.	5.6	6
20	Dynamic tensile properties and microstructural evolution of extruded EW75 magnesium alloy at high strain rates. <i>Journal of Magnesium and Alloys</i> , 2020, 8, 849-859.	5.5	25
21	Stability of twins in Mg alloys – A short review. <i>Journal of Magnesium and Alloys</i> , 2020, 8, 66-77.	5.5	70
22	Influence of Wavy Bending on Microstructure and Mechanical Properties of a Rolled AZ31 Sheet. <i>Metals</i> , 2020, 10, 173.	1.0	5
23	Improving mechanical properties of an AZ91 alloy by properly combining aging treatment and torsion deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 779, 139156.	2.6	10
24	Texture Related Inhomogeneous Deformation and Fracture Localization in Friction-Stir-Welded Magnesium Alloys: A Review. <i>Frontiers in Materials</i> , 2020, 6, .	1.2	5
25	Mechanical behavior and microstructure evolution for extruded AZ31 sheet under side direction strain. <i>Progress in Natural Science: Materials International</i> , 2020, 30, 270-277.	1.8	10
26	Evaluating the orientation relationship of prismatic precipitates generated by detwinning in Mg alloys. <i>Acta Materialia</i> , 2020, 195, 263-273.	3.8	26
27	Coupling pre-aging treatment and side-rolling to improve the mechanical properties of AZ80 alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 779, 139158.	2.6	3
28	Dynamic Recrystallization and Grain Refinement in Extruded AZ31 Rod During Hot Torsion Deformation at 150Å°C. <i>Metals and Materials International</i> , 2019, 25, 147-158.	1.8	20
29	Influence of Torsion on Precipitation and Hardening Effects during Aging of an Extruded AZ91 Alloy. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 4403-4414.	1.2	6
30	Regulating Precipitates by Simple Cold Deformations to Strengthen Mg Alloys: A Review. <i>Materials</i> , 2019, 12, 2507.	1.3	18
31	The Size Dependent Deformation and Strengthening Mechanisms of Nanolayered Co/Ag Micropillars. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 5640-5649.	1.1	4
32	Texture control by {10-12} twinning to improve the formability of Mg alloys: A review. <i>Journal of Materials Science and Technology</i> , 2019, 35, 2269-2282.	5.6	79
33	Observation of Twin Transmission Process in Mg Alloys by In Situ EBSD. <i>Advanced Engineering Materials</i> , 2019, 21, 1801340.	1.6	6
34	Effects of precipitate type on twin/slip activity in ZK60 alloys and yield asymmetry. <i>Journal of Alloys and Compounds</i> , 2019, 792, 610-616.	2.8	35
35	Evaluation of the reliability of twin variant analysis in Mg alloys by in situ EBSD technique. <i>Journal of Magnesium and Alloys</i> , 2019, 7, 258-263.	5.5	17
36	Enhancing the creep resistance of AlN/Al nanoparticles reinforced Mg-2.85Nd-0.92Gd-0.41Zr-0.29Zn alloy by a high shear dispersion technique. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 755, 18-27.	2.6	29

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37	Effect of Shear Strain Rate on Microstructure and Properties of Austenitic Steel Processed by Cyclic Forward/Reverse Torsion. <i>Materials</i> , 2019, 12, 506.	1.3	9
38	Regulating precipitate orientation in Mg-Al alloys by coupling twinning, aging and detwinning processes. <i>Scripta Materialia</i> , 2019, 158, 131-135.	2.6	44
39	Improving age hardening response and mechanical properties of a new Mg-RE alloy via simple pre-cold rolling. <i>Journal of Alloys and Compounds</i> , 2019, 777, 1375-1385.	2.8	45
40	Microstructural characterization and hardness variation of pure Ti surface-treated by pulsed laser. <i>Journal of Alloys and Compounds</i> , 2018, 741, 116-122.	2.8	45
41	Strengthening and toughening austenitic steel by introducing gradient martensite via cyclic forward/reverse torsion. <i>Materials and Design</i> , 2018, 143, 150-159.	3.3	36
42	Strengthening or weakening texture intensity of Zr alloy by modifying cooling rates from $\hat{I}\pm\hat{A}+\hat{I}^2$ region. <i>Materials Chemistry and Physics</i> , 2018, 213, 414-421.	2.0	18
43	Microstructural and Textural Differences Induced by Water and Furnace Cooling in Commercially Pure Zr Annealed in the $\hat{I}\pm\hat{A}\%+\hat{A}\%I^2$ Region. <i>Metals and Materials International</i> , 2018, 24, 673-680.	1.8	12
44	Improvement in the strength of friction-stir-welded ZK60 alloys via post-weld compression and aging treatment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 712, 493-501. https://doi.org/10.1016/j.mseaa.2018.07.010	2.6	34
45	Enhanced Stretch Formability of AZ31 Magnesium Alloy Thin Sheet by Induced Precompression and Sequent Annealing. <i>Materials</i> , 2018, 11, 1401.	2.6	16
46	Improved stretch formability of AZ31 sheet via texture control by introducing a continuous bending channel into equal channel angular rolling. <i>Journal of Materials Processing Technology</i> , 2018, 259, 380-386.	1.3	10
47	Effect of rolling speeds on texture modification and mechanical properties of the AZ31 sheet by a combination of equal channel angular rolling and continuous bending at high temperature. <i>Journal of Alloys and Compounds</i> , 2018, 768, 598-607.	3.1	52
48	Evaluation of corrosion and wear resistance of friction stir welded ZK60 alloy. <i>Science and Technology of Welding and Joining</i> , 2017, 22, 601-609.	2.8	37
49	Evolution of gradient microstructure in an extruded AZ31 rod during torsion and annealing and its effects on mechanical properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 689, 78-88.	1.5	14
50	Influence of Torsion Route on the Microstructure and Mechanical Properties of Extruded AZ31 Rods. <i>Advanced Engineering Materials</i> , 2017, 19, 1700267.	2.6	47
51	Evaluation of Textural Effect on the Rollability of AZ31 Alloys by Wedge-Shaped Sample Design. <i>Advanced Engineering Materials</i> , 2017, 19, 1700035.	1.6	14
52	Bimodal plate structures induced by pulsed laser in duplex-phase Zr alloy. <i>Science China Technological Sciences</i> , 2017, 60, 587-592.	1.6	2
53	Annealing behavior of gradient structured copper and its effect on mechanical properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 702, 331-342.	2.0	7
54		2.6	31

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55	Tension-compression asymmetry of a rolled Mg-Y-Nd alloy. <i>Metals and Materials International</i> , 2017, 23, 683-690.	1.8	16
56	Tailoring the Microstructure and Mechanical Property of AZ80 Alloys by Multiple Twinning and Aging Precipitation. <i>Advanced Engineering Materials</i> , 2017, 19, 1700332.	1.6	10
57	$\{11\bar{2}\}^2$ Transformation characteristics revealed by pulsed laser-induced non-equilibrium microstructures in duplex-phase Zr alloy. <i>Science China Technological Sciences</i> , 2017, 60, 1255-1262.	2.0	34
58	Activations of stacking faults in the calcium-containing magnesium alloys under compression. <i>Journal of Alloys and Compounds</i> , 2017, 692, 898-902.	2.8	10
59	Enhancing the age-hardening response of rolled AZ80 alloy by pre-twinning deformation. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 680, 152-156.	2.6	47
60	On the microstructure and mechanical property of as-extruded Mg-Gd-Y-Zn alloy with Sr addition. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 679, 183-192.	2.6	13
61	Correlation between Boundary Misorientation and a Geometric Parameter for Cross-Boundary Twins in Mg Alloys. <i>Advanced Engineering Materials</i> , 2017, 19, 1600614.	1.6	3
62	Improving Tensile and Compressive Properties of an Extruded AZ91 Rod by the Combined Use of Torsion Deformation and Aging Treatment. <i>Materials</i> , 2017, 10, 280.	1.3	27
63	The different effects of twin boundary and grain boundary on reducing tension-compression yield asymmetry of Mg alloys. <i>Scientific Reports</i> , 2016, 6, 29283.	1.6	36
64	Comparative study on twinning characteristics during two post-weld compression paths and their effects on joint enhancement. <i>Scientific Reports</i> , 2016, 6, 39779.	1.6	13
65	On the dynamic mechanical property and deformation mechanism of as-extruded Mg-Sn-Ca alloys under tension. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 664, 43-48.	2.6	22
66	Evolution of microstructure and grain boundary character distribution of a tin bronze annealed at different temperatures. <i>Materials Characterization</i> , 2016, 114, 204-210.	1.9	38
67	Investigation of microstructures of laser surface-treated Zr702 sheet using electron channeling contrast imaging and electron backscatter diffraction techniques. <i>Surface and Coatings Technology</i> , 2016, 296, 13-19.	2.2	7
68	Influence of basal slip activity in twin lamellae on mechanical behavior of Mg alloys. <i>Materials Letters</i> , 2016, 176, 147-150.	1.3	22
69	Enhancing Thermal Conductivity of Mg-Sn Alloy Sheet by Cold Rolling and Aging. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 2356-2363.	1.2	8
70	Dependence of Microstructure and Hardening Behavior on Torsion Strain and Strain Rate in Extruded AZ31 Rods. <i>Advanced Engineering Materials</i> , 2016, 18, 1683-1689.	1.6	14
71	Formation of profuse $\langle c+a \rangle$ dislocations in deformed calcium-containing magnesium alloys. <i>Philosophical Magazine Letters</i> , 2016, 96, 249-255.	0.5	14
72	Preparation and characterization of Mg alloy rods with gradient microstructure by torsion deformation. <i>Metals and Materials International</i> , 2016, 22, 887-896.	1.8	24

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73	Activating profuse pyramidal slips in magnesium alloys via raising strain rate to dynamic level. Journal of Alloys and Compounds, 2016, 688, 149-152.	2.8	20
74	Microstructures and Mechanical Properties of Commercial Hot-Extruded Copper Processed by Torsion Deformation. Advanced Engineering Materials, 2016, 18, 1738-1746.	1.6	13
75	Twinning characteristic in tension of magnesium alloys and its effect on mechanical properties. Materials and Design, 2016, 107, 503-510.	3.3	40
76	Crystallographic analysis on the activation of multiple twins in rolled AZ31 Mg alloy sheets during uniaxial and plane strain compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 652, 42-50.	2.6	22
77	Enhancing tensile strength of Cu by introducing gradient microstructures via a simple torsion deformation. Materials and Design, 2016, 90, 545-550.	3.3	50
78	Effect of Cu/Zn on microstructure and mechanical properties of extruded Mg-Sn alloys. Materials Science and Technology, 2016, 32, 1240-1248.	0.8	11
79	Effect of cold rolling on microstructure and mechanical property of extruded Mg-4Sm alloy during aging. Materials Characterization, 2016, 112, 81-86.	1.9	18
80	The yield asymmetry and precipitation behavior of pre-twinned ZK60 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 652, 167-174.	2.6	26
81	Strengthening and toughening of extruded magnesium alloy rods by combining pre-torsion deformation with subsequent annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 650, 300-304.	2.6	46
82	Microstructural Evolution and Mechanical Behavior of AZ31 Magnesium Alloy Sheets with Li Addition. Materials Science Forum, 2015, 816, 399-403.	0.3	0
83	Improving tensile and compressive properties of magnesium alloy rods via a simple pre-torsion deformation. Materials and Design, 2015, 83, 270-275.	3.3	59
84	Dependence of tensile and compressive deformation behavior on aging precipitation in rolled ZK60 alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 639, 724-731.	2.6	31
85	Enhancing mechanical properties of Mg-Sn alloys by combining addition of Ca and Zn. Materials and Design, 2015, 83, 736-744.	3.3	118
86	Influence of Torsion Deformation on Textures of Cold Drawing Pearlitic Steel Wires. Acta Metallurgica Sinica (English Letters), 2015, 28, 707-714.	1.5	22
87	Enhancing stretch formability of rolled Mg sheets by pre-inducing contraction twins and recrystallization annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 627, 369-373.	2.6	50
88	Strain compatibility effect on the variant selection of connected twins in magnesium. Materials & Design, 2015, 76, 71-76.	5.1	54
89	Activation of multiple twins by pre-tension and compression to enhance the strength of Mg-3Al-1Zn alloy plates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 621, 100-104.	2.6	28
90	Influence of different extrusion processes on mechanical properties of magnesium alloy. Journal of Magnesium and Alloys, 2014, 2, 220-224.	5.5	36

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91	Observation and Schmid factor analysis of multiple twins in a warm-rolled Mg ³ Al ¹ Zn alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 596, 41-44.	2.6	41
92	Understanding of variant selection and twin patterns in compressed Mg alloy sheets via combined analysis of Schmid factor and strain compatibility factor. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 609, 92-101.	2.6	124
93	Tailoring texture and refining grain of magnesium alloy by differential speed extrusion process. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 612, 187-191.	2.6	47
94	Twinning characteristic and variant selection in compression of a pre-side-rolled Mg alloy sheet. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 614, 106-115.	2.6	35
95	Deformation bands in fully pearlitic steel during wire drawing. <i>Science China Technological Sciences</i> , 2014, 57, 796-803.	2.0	10
96	Influence of Various Precipitate Phases on Tensile Properties of an Extruded Mg-Y-Nd Alloy. <i>Materials Science Forum</i> , 2014, 788, 17-22.	0.3	2
97	Characteristics of long {10-12} twin bands in sheet rolling of a magnesium alloy. <i>Scripta Materialia</i> , 2014, 74, 96-99.	2.6	102
98	Improvement of formability and mechanical properties of magnesium alloys via pre-twinning: A review. <i>Materials & Design</i> , 2014, 62, 352-360.	5.1	160
99	Enhancing the strength of rolled ZK60 alloys via the combined use of twinning deformation and aging treatment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 582, 68-75.	2.6	54
100	Correlation Between Texture Variation and Transverse Tensile Behavior of Friction-Stir-Processed AZ31 Mg Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 2500-2508.	1.1	73
101	Effect of aging precipitation on mechanical anisotropy of an extruded Mg ³ Y ¹ Nd alloy. <i>Materials & Design</i> , 2012, 34, 384-388.	5.1	47
102	Improving tensile and compressive properties of magnesium alloy plates by pre-cold rolling. <i>Scripta Materialia</i> , 2012, 66, 1061-1064.	2.6	209
103	Effect of crystal orientation on the mechanical properties and strain hardening behavior of magnesium alloy AZ31 during uniaxial compression. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 534, 588-593.	2.6	167
104	Influence of extrusion ratio on microstructure and texture developments of high-temperature extruded AZ31 Mg alloy. <i>Science China Technological Sciences</i> , 2012, 55, 490-495.	2.0	11
105	Forming limit of textured AZ31B magnesium alloy sheet at different temperatures. <i>Transactions of Nonferrous Metals Society of China</i> , 2011, 21, 836-843.	1.7	27
106	Influence of microstructure and texture on formability of AZ31B magnesium alloy sheets. <i>Transactions of Nonferrous Metals Society of China</i> , 2011, 21, 844-850.	1.7	16
107	Structural examination of aging precipitation in a Mg ³ Y ¹ Nd alloy at different temperatures. <i>Materials Characterization</i> , 2011, 62, 535-539.	1.9	47
108	Influence of initial texture on formability of AZ31B magnesium alloy sheets at different temperatures. <i>Journal of Materials Processing Technology</i> , 2011, 211, 1575-1580.	3.1	62

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109	Effect of initial texture on dynamic recrystallization of AZ31 Mg alloy during hot rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 2941-2951.	2.6	102
110	Cold stamping formability of AZ31B magnesium alloy sheet undergoing repeated unidirectional bending process. Journal of Materials Processing Technology, 2011, 211, 644-649.	3.1	52
111	Texture evolution and mechanical properties of AZ31B magnesium alloy sheets processed by repeated unidirectional bending. Journal of Alloys and Compounds, 2010, 489, 475-481.	2.8	69
112	Tensile properties and microstructure of AZ31B magnesium alloy sheet processed by repeated unidirectional bending. Transactions of Nonferrous Metals Society of China, 2010, 20, 28-33.	1.7	20
113	Structure and properties of AZ31B magnesium alloy sheets processed by repeatedly unidirectional bending at different temperatures. Transactions of Nonferrous Metals Society of China, 2010, 20, 1815-1821.	1.7	7
114	Cold stamping for AZ31B magnesium alloy sheet of cell phone house. Transactions of Nonferrous Metals Society of China, 2010, 20, s608-s612.	1.7	7
115	Ultrastructure characterization of hydroxyapatite nanoparticles synthesized by EDTA-assisted hydrothermal method. Journal of Materials Science, 2009, 44, 4205-4209.	1.7	8
116	Effects of porosity and crystallinity of glass ceramics on the <i>in vivo</i> bioactive response. Biomedical Materials (Bristol), 2008, 3, 041001.	1.7	6
117	Analytical TEM Study of Biomineral Phases. , 2008, , .		0