

Zhiyi Liu

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99
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102
ext. papers

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ext. citations

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avg, IF

4.93
L-index

#	Paper	IF	Citations
99	Microstructure and mechanical properties of ZK60 Yb magnesium alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 478, 101-107	5.3	69
98	Microstructures and fatigue fracture behavior of an Al CuMgAg alloy with addition of rare earth Er. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 1806-1814	5.3	64
97	On strain-induced dissolution of θ and θ' particles in Al Cu binary alloy during equal channel angular pressing. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 2217-2222	5.3	60
96	Mechanisms for Goss-grains induced crack deflection and enhanced fatigue crack propagation resistance in fatigue stage II of an AA2524 alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 625, 271-277	5.3	54
95	Reprecipitation behavior in Al Cu binary alloy after severe plastic deformation-induced dissolution of θ particles. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 546, 26-33	5.3	52
94	Evolution of the Brass texture in an Al-Cu-Mg alloy during hot rolling. <i>Journal of Alloys and Compounds</i> , 2017 , 691, 786-799	5.7	47
93	Enhanced fatigue crack propagation resistance in a superhigh strength Al ZnMgCu alloy by modifying RRA treatment. <i>Materials Characterization</i> , 2016 , 118, 438-445	3.9	40
92	Deformation behavior of an Al CuMgMnZr alloy during hot compression. <i>Journal of Materials Science</i> , 2011 , 46, 3708-3715	4.3	40
91	Strain-induced dissolution of Cu Mg co-clusters and dynamic recrystallization near a fatigue crack tip of an underaged Al CuMg alloy during cyclic loading at ambient temperature. <i>Scripta Materialia</i> , 2011 , 64, 1133-1136	5.6	37
90	Slip band formation in plastic deformation zone at crack tip in fatigue stage II of 2xxx aluminum alloys. <i>International Journal of Fatigue</i> , 2016 , 91, 68-78	5	36
89	Grain Refinement of the Al-Cu-Mg-Ag Alloy with Er and Sc Additions. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2007 , 38, 2853-2858	2.3	35
88	Enhanced fracture toughness in an annealed Al-Cu-Mg alloy by increasing Goss/Brass texture ratio. <i>Materials Characterization</i> , 2016 , 119, 47-54	3.9	34
87	Microstructures and fatigue fracture behavior of an Al CuMgAg alloy with a low Cu/Mg ratio. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 530, 473-480	5.3	34
86	Effects of Ge and Ag additions on quench sensitivity and mechanical properties of an Al ZnMgCu alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 682, 640-647	5.3	33
85	Multistage-aging process effect on formation of GP zones and mechanical properties in Al ZnMgCu alloy. <i>Transactions of Nonferrous Metals Society of China</i> , 2016 , 26, 1183-1190	3.3	32
84	On the role of texture in governing fatigue crack propagation behavior of 2524 aluminum alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 669, 367-378	5.3	32
83	The dissolution behavior of θ phase in Al Cu binary alloy during equal channel angular pressing and multi-axial compression. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 4300-4305	5.3	31

82	Effects of Ag variations on the microstructures and mechanical properties of AlCuMg alloys at elevated temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 611, 69-76	5.3	30
81	Enhanced Fatigue Crack Propagation Resistance in an Al-Zn-Mg-Cu Alloy by Retrogression and Reaging Treatment. <i>Journal of Materials Engineering and Performance</i> , 2012 , 21, 2345-2353	1.6	30
80	Goss texture intensity effect on fatigue crack propagation resistance in an Al-Cu-Mg alloy. <i>Journal of Alloys and Compounds</i> , 2018 , 730, 318-326	5.7	29
79	Quantitative transmission electron microscopy and atom probe tomography study of Ag-dependent precipitation of β phase in Al-Cu-Mg alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 687, 8-16	5.3	28
78	Mg-controlled formation of MgAg co-clusters in initial aged AlCuMgAg alloys. <i>Journal of Alloys and Compounds</i> , 2014 , 602, 193-198	5.7	25
77	Enhanced fatigue crack propagation resistance of Al-Cu-Mg alloy by intensifying Goss texture and refining Goss grains. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 679, 204-214	5.3	25
76	Effects of natural aging on the formation and strengthening effect of G.P. zones in a retrogression and re-aged AlZnMgCu alloy. <i>Journal of Alloys and Compounds</i> , 2020 , 829, 154469	5.7	23
75	Effects of Ag Addition on Precipitation and Fatigue Crack Propagation Behavior of a Medium-Strength AlZnMg Alloy. <i>Journal of Materials Science and Technology</i> , 2018 , 34, 534-540	9.1	23
74	Analysis of empirical relation between microstructure, texture evolution and fatigue properties of an Al-Cu-Li alloy during different pre-deformation processes. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 726, 309-319	5.3	22
73	Severe plastic deformation-induced dissolution of β particles in AlCu binary alloy and subsequent nature aging behavior. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 556, 801-806	5.3	22
72	Effects of germanium on quench sensitivity in AlZnMgZr alloy. <i>Materials and Design</i> , 2015 , 86, 679-685	8.1	20
71	Atom probe tomography study of Mg-dependent precipitation of β phase in initial aged Al-CuMgAg alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 637, 183-188	5.3	20
70	Solute cluster size effect on the fatigue crack propagation resistance of an underaged AlCuMg alloy. <i>International Journal of Fatigue</i> , 2016 , 84, 104-112	5	19
69	Alloying behavior of erbium in an AlCuMg alloy. <i>Journal of Alloys and Compounds</i> , 2010 , 505, 201-205	5.7	18
68	On the interface and mechanical property of Ti/Al0.5%Cu0.5%Mg0.4%Ag bimetal composite produced by cold-roll bonding and subsequent annealing treatment. <i>Materials Letters</i> , 2012 , 74, 89-92	3.3	17
67	The influence of preaging on the strength and precipitation behavior of a deformed Al-Cu-Mg-Ag alloy. <i>Journal of Alloys and Compounds</i> , 2018 , 764, 62-72	5.7	16
66	Stress-induced thickening of β phase in AlCuMg alloys containing various Ag additions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 589, 89-96	5.3	16
65	Dependence of Competitive Grain Growth on Secondary Dendrite Orientation During Directional Solidification of a Ni-based Superalloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2013 , 44, 5113-5121	2.3	16

64	Transition of crack propagation from a transgranular to an intergranular path in an overaged Al-Zn-Mg-Cu alloy during cyclic loading. <i>Metals and Materials International</i> , 2013 , 19, 197-203	2.4	14
63	The influence of various Ag additions on the nucleation and thermal stability of β phase in AlCuMg alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 564, 186-191	5.3	14
62	Anisotropy in fatigue crack propagation behavior of Al-Cu-Li alloy thick plate. <i>Materials Characterization</i> , 2017 , 131, 440-449	3.9	14
61	A Review of Texture Evolution Mechanisms During Deformation by Rolling in Aluminum Alloys. <i>Journal of Materials Engineering and Performance</i> , 2018 , 27, 3350-3373	1.6	13
60	Quantitative study of the solute clustering and precipitation in a pre-stretched Al-Cu-Mg-Ag alloy. <i>Journal of Alloys and Compounds</i> , 2017 , 725, 1288-1296	5.7	13
59	Effect of Ag additions on the lengthening rate of β plates and formation of β phase in Al-Cu-Mg alloys during thermal exposure. <i>Materials Characterization</i> , 2017 , 123, 1-8	3.9	13
58	Analysis of modulus hardening in an artificial aged AlCuMg alloy by atom probe tomography. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 629, 23-28	5.3	13
57	Enhanced mechanical properties in an AlCuMgAg alloy by duplex aging. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 8060-8064	5.3	13
56	Dynamic dissolution and texture evolution of an AlCuMgAg alloy during hot rolling. <i>Journal of Alloys and Compounds</i> , 2020 , 827, 154254	5.7	12
55	Effects of small Er addition on the microstructural evolution and strength properties of an AlCuMgAg alloy aged at 200°C. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 766, 138351	5.3	12
54	Effects of Severe Cold Rolling on Exfoliation Corrosion Behavior of Al-Zn-Mg-Cu-Cr Alloy. <i>Journal of Materials Engineering and Performance</i> , 2012 , 21, 1070-1075	1.6	12
53	Effect of Sc addition on the microstructures and age-hardening behavior of an Al Cu Mg Ag alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 756, 258-267	5.3	11
52	Effects of pre-strain on the surface residual stress and corrosion behavior of an Al-Zn-Mg-Cu alloy plate. <i>Materials Characterization</i> , 2020 , 160, 110129	3.9	11
51	Microstructure evolution and mechanical properties of the electron-beam welded joints of cast AlCuMgAg alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 801, 140363	5.3	11
50	Effect of S phase characteristics on the formation of recrystallization textures of an Al-Cu-Mg alloy. <i>Journal of Alloys and Compounds</i> , 2018 , 747, 293-305	5.7	10
49	P-Texture Effect on the Fatigue Crack Propagation Resistance in an Al-Cu-Mg Alloy Bearing a Small Amount of Silver. <i>Materials</i> , 2018 , 11,	3.5	10
48	Texture Evolution and Its Effect on Fatigue Crack Propagation in Two 2000 Series Alloys. <i>Journal of Materials Engineering and Performance</i> , 2019 , 28, 1324-1336	1.6	9
47	Dislocation interaction with β phase in crept AlCuMgAg alloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 651, 399-405	5.3	9

46	Effect of Overaging on Fatigue Crack Propagation and Stress Corrosion Cracking Behaviors of an Al-Zn-Mg-Cu Alloy Thick Plate. <i>Journal of Materials Engineering and Performance</i> , 2018 , 27, 3824-3830	1.6	9
45	Improved Stress Corrosion Cracking Resistance and Strength of a Two-Step Aged Al-Zn-Mg-Cu Alloy Using Taguchi Method. <i>Journal of Materials Engineering and Performance</i> , 2015 , 24, 4870-4877	1.6	9
44	Coincidence site lattice boundary mechanism for the preferred growth of Goss and Cube grains during annealing in an Al-Cu-Mg alloy. <i>Materials Characterization</i> , 2018 , 141, 193-211	3.9	9
43	Analysis on the dissolution behavior of various size Cu-Mg co-clusters near a fatigue crack tip of underaged Al-Cu-Mg alloy during cyclic loading. <i>Journal of Alloys and Compounds</i> , 2017 , 699, 119-125	5.7	8
42	Effects of pre-strain on Cu-Mg co-clustering and mechanical behavior in a naturally aged Al-Cu-Mg alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 704, 18-24	5.3	8
41	Investigation of modulus hardening of various co-clusters in aged Al-Cu-Mg-Ag alloy by atom probe tomography. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 668, 234-242	5.3	8
40	Effects of yttrium additions on microstructures and mechanical properties of cast Al-Cu-Mg-Ag alloys. <i>Journal of Alloys and Compounds</i> , 2021 , 870, 159435	5.7	8
39	Evolution of Goss texture in an AlCuMg alloy during cold rolling. <i>Archives of Civil and Mechanical Engineering</i> , 2020 , 20, 1	3.4	7
38	Hot Deformation Behavior Considering Strain Effects and Recrystallization Mechanism of an Al-Zn-Mg-Cu Alloy. <i>Materials</i> , 2020 , 13,	3.5	7
37	Effect of T-phase on microstructure of the hot rolled AlCuMg alloy. <i>Journal of Alloys and Compounds</i> , 2020 , 825, 154190	5.7	6
36	Effects of aging temperature on the precipitation behavior of β phase in an Al-Cu-Mg-Ag alloy. <i>Metals and Materials International</i> , 2011 , 17, 1-6	2.4	6
35	Improving the Fatigue Crack Propagation Resistance and Damage Tolerance of 2524-T3 Alloy with Amorphous Electroless Ni-P Coating. <i>Journal of Materials Engineering and Performance</i> , 2018 , 27, 881-888	1.6	5
34	Growth of β Plates and Its Effect on Mechanical Properties in Al-Cu-Mg-Ag Alloy with High Content of Silver. <i>Journal of Materials Engineering and Performance</i> , 2013 , 22, 1708-1715	1.6	5
33	Effect of artificial aging on the Cu-Mg co-clustering and mechanical behavior in a pre-strained Al-Cu-Mg alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 707, 412-418	5.3	5
32	Effects of Pre-Strain on Exfoliation Corrosion Behavior in Al-Cu-Mg Alloy. <i>Journal of Materials Engineering and Performance</i> , 2012 , 21, 1479-1484	1.6	5
31	Combined Effect of Ag and Mg Additions on Localized Corrosion Behavior of Al-Cu Alloys with High Cu Content. <i>Journal of Materials Engineering and Performance</i> , 2020 , 29, 6108-6117	1.6	5
30	Texture Evolution in an Al-Cu-Mg Alloy During Hot Rolling. <i>Journal of Materials Engineering and Performance</i> , 2018 , 27, 3255-3267	1.6	5
29	Enhanced damage tolerance through reconstructing residual stress and Cu-Mg co-clusters by pre-rolling in an Al-Cu-Mg alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 700, 241-249	5.3	4

28	Enhanced Heat Resistance of Al-Cu-Mg Alloy by a Combination of Pre-stretching and Underaging. <i>Journal of Materials Engineering and Performance</i> , 2016 , 25, 3793-3801	1.6	4
27	Texture Effect on Fatigue Crack Propagation Behavior in Annealed Sheets of an Al-Cu-Mg Alloy. <i>Journal of Materials Engineering and Performance</i> , 2018 , 27, 4693-4702	1.6	4
26	Enhanced Brass texture of hot-rolled Al-4Cu-1.6Mg alloy by 0.1% Zr addition. <i>Materials Characterization</i> , 2020 , 169, 110643	3.9	4
25	Corrosion Resistance of Bis-Silane-Modified Epoxy Coatings on an Al-Zn-Mg-Cu Alloy. <i>Journal of Materials Engineering and Performance</i> , 2020 , 29, 5282-5290	1.6	4
24	Effect of various aging treatment on thermal stability of a novel Al-Zn-Mg-Cu alloy for oil drilling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 803, 140490	5.3	4
23	Grain-orientation induced stress formation in AA2024 monocrystal and bicrystal using Crystal Plasticity Finite Element Method. <i>Materials and Design</i> , 2021 , 206, 109794	8.1	4
22	Texture effect on fatigue crack propagation in aluminium alloys: an overview. <i>Materials Science and Technology</i> , 2019 , 35, 1789-1802	1.5	3
21	Microstructure and Three-Point Bending Fatigue Behavior of Al-Cu-Mg-Ag Alloys with Various Mg Contents. <i>Journal of Materials Engineering and Performance</i> , 2019 , 28, 6614-6625	1.6	3
20	Coupling Effect of Grain Structures and Residual Secondary Phases on Fatigue Crack Propagation Behavior in an Al-Cu-Mg Alloy. <i>Journal of Materials Engineering and Performance</i> , 2021 , 30, 2669-2679	1.6	3
19	Corrosion Resistance of Epoxy Coatings Modified by Bis-Silane Prepolymer on Aluminum Alloy. <i>Coatings</i> , 2021 , 11, 842	2.9	3
18	Texture and Tempered Condition Combined Effects on Fatigue Behavior in an Al-Cu-Li Alloy. <i>Journal of Materials Engineering and Performance</i> , 2017 , 26, 2453-2458	1.6	2
17	The Effect of Multistage Aging on Mechanical Properties and Microstructure of Forged 7050 Aluminum Alloys. <i>Journal of Materials Engineering and Performance</i> , 2019 , 28, 3590-3599	1.6	2
16	Existing form and effect of zirconium in pure Mg, Mg-Yb, and Mg-Zn-Yb alloys. <i>Rare Metals</i> , 2009 , 28, 289-296	5.5	2
15	Effect of Minor Er Additions on the Microstructures and Mechanical Properties of Cast Al-Cu-Mg-Ag Alloys. <i>Materials</i> , 2021 , 14,	3.5	2
14	Tribological Behavior of Al ₂ O ₃ -MoO ₂ -SiO ₂ Composite Ceramic Coating on Al-Zn-Mg-Cu Alloy. <i>Coatings</i> , 2021 , 11, 915	2.9	2
13	Fatigue crack propagation within Al-Cu-Mg single crystals based on crystal plasticity and XFEM combined with cohesive zone model. <i>Materials and Design</i> , 2021 , 210, 110015	8.1	2
12	On the role of the solute partitioning and chemistry in initial precipitation of β plates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019 , 766, 138339	5.3	1
11	Effect of cold rolling on microstructure and hardness of annealed AlCuMg alloy. <i>Archives of Civil and Mechanical Engineering</i> , 2022 , 22, 1	3.4	1

10	Evolution of Microstructure, Texture, and Hardness in an Al-Cu-Mg Alloy during Annealing. <i>Journal of Materials Engineering and Performance</i> ,1	1.6	1
9	Preparation and Characterization of a Silane Sealed PEO Coating on Aluminum Alloy. <i>Coatings</i> , 2021 , 11, 549	2.9	1
8	Effects of Dislocation Slip Behaviour and Second-Phase Particles on Hot Rolled Texture of an Al-Cu-Mg Alloy with a High Cu/Mg Ratio. <i>Journal of Alloys and Compounds</i> , 2022 , 165085	5.7	1
7	Effects of Temperature Distribution on Microstructure and Mechanical Properties of Hot Extruded Al ₇₀ Mg ₁₀ Cu Alloy Pipe with Variable Cross-Section. <i>Metals and Materials International</i> ,1	2.4	0
6	Making Al-Cu-Mg alloy tough by Goss-oriented grain refinement. <i>Journal of Alloys and Compounds</i> , 2022 , 904, 164095	5.7	0
5	Effect of rolling temperature on mechanical properties and corrosion resistance of Al-Cu-Mg-Ag alloy. <i>Journal of Alloys and Compounds</i> , 2022 , 897, 163168	5.7	0
4	Fatigue crack propagation across grain boundary of Al-Cu-Mg bicrystal based on crystal plasticity XFEM and cohesive zone model. <i>Journal of Materials Science and Technology</i> , 2022 , 126, 275-287	9.1	0
3	MICROSTRUCTURAL EVOLUTION AND FLOW BEHAVIOR OF TWIN-ROLL CAST AZ41 MAGNESIUM ALLOY DURING HOT COMPRESSION. <i>International Journal of Modern Physics B</i> , 2012 , 26, 1250181	1.1	
2	STRESS DROP LED BY TWINNING DURING INITIAL STAGE OF HOT COMPRESSION OF TWIN-ROLL CAST Mg _{85.51} Zn _{0.49} Zr ALLOY. <i>International Journal of Modern Physics B</i> , 2012 , 26, 1250182	1.1	
1	Dislocation multiplication and dynamics in an aluminium alloy. <i>Philosophical Magazine Letters</i> ,1-11	1	