

Xiao-Jun Wang

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112
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h-index

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118
ext. papers

4,732
ext. citations

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avg, IF

5.57
L-index

#	Paper	IF	Citations
112	What is going on in magnesium alloys?. <i>Journal of Materials Science and Technology</i> , 2018 , 34, 245-247	9.1	382
111	Microstructure and strengthening mechanism of bimodal size particle reinforced magnesium matrix composite. <i>Composites Part A: Applied Science and Manufacturing</i> , 2012 , 43, 1280-1284	8.4	151
110	Microstructure and mechanical properties of SiC nanoparticles reinforced magnesium matrix composites fabricated by ultrasonic vibration. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 5278-5282	5.3	101
109	Processing maps for hot working of ZK60 magnesium alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 464, 52-58	5.3	99
108	Processing, microstructure and mechanical properties of magnesium matrix nanocomposites fabricated by semisolid stirring assisted ultrasonic vibration. <i>Journal of Alloys and Compounds</i> , 2011 , 509, 8664-8669	5.7	95
107	Graphene nanoplatelets induced heterogeneous bimodal structural magnesium matrix composites with enhanced mechanical properties. <i>Scientific Reports</i> , 2016 , 6, 38824	4.9	91
106	Effect of particle size on microstructure and mechanical properties of SiCp/AZ91 magnesium matrix composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 543, 158-163	5.3	81
105	Effect of hot extrusion on microstructures and mechanical properties of SiC nanoparticles reinforced magnesium matrix composite. <i>Journal of Alloys and Compounds</i> , 2012 , 512, 355-360	5.7	81
104	Microstructure and strengthening mechanism of carbon nanotubes reinforced magnesium matrix composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 597, 264-269	5.3	80
103	Microstructure and tensile property of the ECAPed pure magnesium. <i>Journal of Alloys and Compounds</i> , 2009 , 470, 256-262	5.7	80
102	Study on fracture behavior of particulate reinforced magnesium matrix composite using in situ SEM. <i>Composites Science and Technology</i> , 2007 , 67, 2253-2260	8.6	78
101	Development of SiCp/AZ91 magnesium matrix nanocomposites using ultrasonic vibration. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 540, 123-129	5.3	73
100	Enhanced overall strength and ductility of magnesium matrix composites by low content of graphene nanoplatelets. <i>Composites Part A: Applied Science and Manufacturing</i> , 2017 , 100, 183-193	8.4	71
99	Microstructure evolution and mechanical properties of a particulate reinforced magnesium matrix composites forged at elevated temperatures. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 1630-1635	5.3	71
98	Effect of hot extrusion on the microstructure of a particulate reinforced magnesium matrix composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2007 , 465, 78-84	5.3	66
97	Microstructure and mechanical properties of SiCp/AZ91 composite deformed through a combination of forging and extrusion process. <i>Materials & Design</i> , 2010 , 31, 3929-3932		62
96	Multidirectional forging of AZ91 magnesium alloy and its effects on microstructures and mechanical properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 624, 157-168	5.3	57

95	Microstructure and tensile properties of micro-SiC particles reinforced magnesium matrix composites produced by semisolid stirring assisted ultrasonic vibration. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 8709-8714	5.3	56
94	Characteristics and mechanical properties of magnesium matrix composites reinforced with micron/submicron/nano SiC particles. <i>Journal of Alloys and Compounds</i> , 2016 , 686, 831-840	5.7	53
93	Achieving high strength and ductility in graphene/magnesium composite via an in-situ reaction wetting process. <i>Carbon</i> , 2018 , 139, 954-963	10.4	53
92	Development of high mechanical properties and moderate thermal conductivity cast Mg alloy with multiple RE via heat treatment. <i>Journal of Materials Science and Technology</i> , 2018 , 34, 1076-1084	9.1	51
91	Isothermal forging of AZ91 reinforced with 10vol.% silicon carbon particles. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 1707-1712	5.3	50
90	Effect of bimodal size SiC particulates on microstructure and mechanical properties of AZ31B magnesium matrix composites. <i>Materials & Design</i> , 2013 , 52, 1011-1017		49
89	Influence of SiC nanoparticles addition on the microstructural evolution and mechanical properties of AZ91 alloy during isothermal multidirectional forging. <i>Materials Characterization</i> , 2017 , 124, 14-24	3.9	48
88	Dynamic recrystallization behavior of particle reinforced Mg matrix composites fabricated by stir casting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 545, 38-43	5.3	48
87	Dynamic recrystallization behavior during hot deformation and mechanical properties of 0.2% SiCp reinforced Mg matrix composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 560, 824-830	5.3	46
86	Influences of extrusion parameters on microstructure and mechanical properties of particulate reinforced magnesium matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 6387-6392	5.3	46
85	Effect of submicron size SiC particles on microstructure and mechanical properties of AZ31B magnesium matrix composites. <i>Materials & Design</i> , 2014 , 54, 436-442		45
84	Microstructure, mechanical properties and fracture mechanism of Ti2AlC reinforced AZ91D composites fabricated by stir casting. <i>Journal of Alloys and Compounds</i> , 2017 , 702, 199-208	5.7	44
83	Distribution and integrity of carbon nanotubes in carbon nanotube/magnesium composites. <i>Journal of Alloys and Compounds</i> , 2014 , 612, 330-336	5.7	44
82	Ageing behavior of as-cast SiCp/AZ91 Mg matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 682, 491-500	5.3	42
81	Influence of extrusion temperature and process parameter on microstructures and tensile properties of a particulate reinforced magnesium matrix nanocomposite. <i>Materials & Design</i> , 2012 , 36, 199-205		42
80	Significantly improved strength and ductility in bimodal-size grained microstructural magnesium matrix composites reinforced by bimodal sized SiCp over traditional magnesium matrix composites. <i>Composites Science and Technology</i> , 2015 , 118, 85-93	8.6	41
79	Beyond the dimensional limitation in bio-inspired composite: Insertion of carbon nanotubes induced laminated Cu composite and the simultaneously enhanced strength and toughness. <i>Carbon</i> , 2018 , 130, 222-232	10.4	38
78	Effect of extrusion temperatures on microstructure and mechanical properties of SiCp/MgZnCa composite. <i>Journal of Alloys and Compounds</i> , 2012 , 532, 78-85	5.7	38

77	Microstructure and mechanical property of the ECAPed Mg ₂ Si/Mg composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009 , 516, 283-289	5:3	38
76	Graphene nanoplatelets reinforced Mg matrix composite with enhanced mechanical properties by structure construction. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 733, 414-418	5:3	37
75	Fabrication of bimodal size SiCp reinforced AZ31B magnesium matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014 , 601, 58-64	5:3	36
74	Microstructures and mechanical properties of AZ91 magnesium alloy processed by multidirectional forging under decreasing temperature conditions. <i>Journal of Alloys and Compounds</i> , 2014 , 617, 979-987	5:7	36
73	Multidirectional forging of magnesium matrix composites: Effect on microstructures and tensile properties. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 7364-7368	5:3	36
72	Molten salt assisted solidification nanoprocessing of Al-TiC nanocomposites. <i>Materials Letters</i> , 2016 , 185, 392-395	3:3	35
71	Achieving ultra-high strengthening and toughening efficiency in carbon nanotubes/magnesium composites via constructing micro-nano layered structure. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019 , 119, 225-234	8:4	34
70	Microstructures and mechanical properties of SiCp/AZ91 magnesium matrix nanocomposites processed by multidirectional forging. <i>Journal of Alloys and Compounds</i> , 2015 , 622, 1018-1026	5:7	34
69	Effects of bimodal size SiC particles on the microstructure evolution and fracture mechanism of AZ91 matrix at room temperature. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 553, 74-79	5:3	34
68	Magnesium matrix composite reinforced by nanoparticles [A review]. <i>Journal of Magnesium and Alloys</i> , 2021 , 9, 57-77	8:8	34
67	Microstructure and elevated tensile properties of submicron SiCp/AZ91 magnesium matrix composite. <i>Materials & Design</i> , 2012 , 38, 110-114		32
66	Evolutions of microstructure and mechanical properties for SiCp/AZ91 composites with different particle contents during extrusion. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 636, 138-147	5:3	31
65	Effect of ultrasonic vibration and solution heat treatment on microstructures and tensile properties of AZ91 alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 7484-7487	5:3	31
64	Damping capacities and tensile properties of magnesium matrix composites reinforced by graphite particles. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 6816-6821	5:3	31
63	Hot extrusion of SiCp/AZ91 Mg matrix composites. <i>Transactions of Nonferrous Metals Society of China</i> , 2012 , 22, 1912-1917	3:3	30
62	Effect of extrusion temperature on microstructures and damping capacities of Grp/AZ91 composite. <i>Journal of Alloys and Compounds</i> , 2010 , 506, 688-692	5:7	30
61	Microstructure and mechanical properties of SiCp/MgZnCa composites fabricated by stir casting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012 , 534, 60-67	5:3	29
60	Effect of multidirectional forging on microstructures and tensile properties of a particulate reinforced magnesium matrix composite. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011 , 528, 7133-7139	5:3	29

59	Evolution Behavior of Carbides in 2.25Cr-1Mo-0.25V Steel. <i>Materials Transactions</i> , 2009 , 50, 2507-2511	1.3	29
58	Hot deformation behavior of SiCp/AZ91 magnesium matrix composite fabricated by stir casting. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008 , 492, 481-485	5.3	29
57	Role of β Phase during Microarc Oxidation of Mg Alloy AZ91D and Corrosion Resistance of the Oxidation Coating. <i>Journal of Materials Science and Technology</i> , 2013 , 29, 1129-1133	9.1	28
56	Electromagnetic interference shielding effectiveness of magnesium alloy-fly ash composites. <i>Journal of Alloys and Compounds</i> , 2015 , 650, 871-877	5.7	28
55	Characterization and strengthening mechanism of SiC nanoparticles reinforced magnesium matrix composite fabricated by ultrasonic vibration assisted squeeze casting. <i>Journal of Materials Research</i> , 2017 , 32, 2609-2620	2.5	27
54	High temperature damping behavior of as-deformed Mg matrix influenced by micron and submicron SiCp. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 624, 62-70	5.3	26
53	A Novel Melt Processing for Mg Matrix Composites Reinforced by Multiwalled Carbon Nanotubes. <i>Journal of Materials Science and Technology</i> , 2016 , 32, 1303-1308	9.1	26
52	High-compactness coating grown by plasma electrolytic oxidation on AZ31 magnesium alloy in the solution of silicate-Borax. <i>Applied Surface Science</i> , 2012 , 259, 362-366	6.7	26
51	Microstructural modification and strength enhancement by SiC nanoparticles in AZ31 magnesium alloy during hot rolling. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 715, 49-61	5.3	24
50	Fabrication of SiC particles-reinforced magnesium matrix composite by ultrasonic vibration. <i>Journal of Materials Science</i> , 2012 , 47, 138-144	4.3	24
49	Self-lubricate and anisotropic wear behavior of AZ91D magnesium alloy reinforced with ternary Ti ₂ AlC MAX phases. <i>Journal of Materials Science and Technology</i> , 2019 , 35, 275-284	9.1	24
48	Effect of strain rate and temperature on the mechanical behavior of magnesium nanocomposites. <i>International Journal of Mechanical Sciences</i> , 2014 , 89, 381-390	5.5	21
47	A Novel Method to Fabricate CNT/Mg β Zn Composites with High Strengthening Efficiency. <i>Acta Metallurgica Sinica (English Letters)</i> , 2014 , 27, 909-917	2.5	21
46	Microstructure and tensile properties of SiC nanoparticles reinforced magnesium matrix composite prepared by multidirectional forging under decreasing temperature conditions. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015 , 639, 465-473	5.3	20
45	Recent Research on the Deformation Behavior of Particle Reinforced Magnesium Matrix Composite: A Review. <i>Acta Metallurgica Sinica (English Letters)</i> , 2019 , 32, 413-425	2.5	19
44	Study on titanium-magnesium composites with bicontinuous structure fabricated by powder metallurgy and ultrasonic infiltration. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018 , 81, 10-15	4.1	19
43	Development of High Performance Magnesium Matrix Nanocomposites Using Nano-SiC Particulates as Reinforcement. <i>Journal of Materials Engineering and Performance</i> , 2015 , 24, 3798-3807	1.6	19
42	Role of structural parameters on strength-ductility combination of laminated carbon nanotubes/copper composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2019 , 116, 138-146	8.4	19

41	Effect of SiC particles on microarc oxidation process of magnesium matrix composites. <i>Applied Surface Science</i> , 2013 , 283, 906-913	6.7	18
40	Effects of hot rolling on microstructure, macrotexture and mechanical properties of pre-extruded AZ31/SiC nanocomposite sheets. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017 , 683, 15-23	5.3	18
39	Microstructure evolutions of SiCp/AZ91 Mg matrix composites during hot compression. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013 , 559, 139-146	5.3	18
38	Microstructure and room temperature tensile properties of 1 μ m-SiCp/AZ31B magnesium matrix composite. <i>Journal of Magnesium and Alloys</i> , 2015 , 3, 155-161	8.8	17
37	Synthesis and characterization of textured Ti ₂ AlC reinforced magnesium composite. <i>Journal of Alloys and Compounds</i> , 2018 , 730, 191-195	5.7	16
36	Microstructure and mechanical properties of bio-inspired Cf/Ti/Mg laminated composites. <i>Journal of Magnesium and Alloys</i> , 2018 , 6, 164-170	8.8	16
35	Damping capacities and tensile properties in Grp/AZ91 and SiCp/Grp/AZ91 magnesium matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010 , 527, 7873-7877	5.3	14
34	Effects of hot extrusion on microstructure and mechanical properties of Mg matrix composite reinforced with deformable TC4 particles. <i>Journal of Magnesium and Alloys</i> , 2020 , 8, 421-430	8.8	13
33	Precipitate characteristics and synergistic strengthening realization of graphene nanoplatelets reinforced bimodal structural magnesium matrix composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018 , 724, 348-356	5.3	12
32	In-situ analysis of slip transfer and heterogeneous deformation in tension of Mg-5.4Gd-1.8Y-1.5Zn alloy. <i>Journal of Magnesium and Alloys</i> , 2020 , 8, 1186-1197	8.8	12
31	Microstructure evolution during superplastic deformation process and its impact on superplastic behavior of a Mg-Gd-Y-Zn-Zr alloy. <i>Materials Characterization</i> , 2021 , 172, 110879	3.9	12
30	Fabrication, microstructure and mechanical properties of Mg matrix composites reinforced by high volume fraction of sphere TC4 particles. <i>Journal of Magnesium and Alloys</i> , 2016 , 4, 286-294	8.8	11
29	Development and strengthening mechanisms of a hybrid CNTs@SiCp/Mg-6Zn composite fabricated by a novel method. <i>Journal of Magnesium and Alloys</i> , 2021 , 9, 1363-1372	8.8	11
28	Effects of Reinforced Particles on Dynamic Recrystallization of Mg Base Alloys during Hot Extrusion. <i>Rare Metal Materials and Engineering</i> , 2014 , 43, 1821-1825		10
27	Low frequency damping capacities of commercial pure magnesium. <i>Transactions of Nonferrous Metals Society of China</i> , 2012 , 22, 1907-1911	3.3	10
26	Hot rolling behavior of graphene/Cu composites. <i>Journal of Alloys and Compounds</i> , 2020 , 816, 153204	5.7	10
25	Processing, Microstructure and Mechanical Properties of Ti6Al4V Particles-Reinforced Mg Matrix Composites. <i>Acta Metallurgica Sinica (English Letters)</i> , 2016 , 29, 940-950	2.5	10
24	Role of Al ₁₈ B ₄ O ₃₃ Whisker in MAO Process of Mg Matrix Composite and Protective Properties of the Oxidation Coating. <i>Journal of Materials Science and Technology</i> , 2013 , 29, 267-272	9.1	8

23	Interfacial Characteristic of as-Deformed SiCp-Reinforced Magnesium Matrix Composite. <i>Acta Metallurgica Sinica (English Letters)</i> , 2014 , 27, 885-893	2.5	8
22	Elastic strain induced abnormal grain growth in graphene nanosheets (GNSs) reinforced copper (Cu) matrix composites. <i>Acta Materialia</i> , 2020 , 200, 338-350	8.4	8
21	Precise measurement of strain accommodation in a Mg-Gd-Y-Zn alloy using cross-correlation-based high resolution EBSD. <i>Materials Characterization</i> , 2020 , 165, 110384	3.9	7
20	Effects of (micron+submicron+nano) multisized SiC particles on microstructure and mechanical properties of magnesium matrix composites. <i>Journal of Composite Materials</i> , 2018 , 52, 2055-2064	2.7	7
19	Interfacial Modification Using Matrix Alloying in Mg/CNT Composites for Improved Mechanical Performance. <i>Journal of Materials Engineering and Performance</i> , 2019 , 28, 3041-3047	1.6	5
18	Development of SiC Nanoparticles and Second Phases Synergistically Reinforced Mg-Based Composites Processed by Multi-Pass Forging with Varying Temperatures. <i>Materials</i> , 2018 , 11,	3.5	5
17	Investigation into the influence of carbon nanotubes addition on residual stresses and mechanical properties in the CNTs@SiCp/Mg-6Zn hybrid composite using neutron diffraction method. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> 2020 , 797, 140105	5.3	5
16	The Comparison in the Microstructure and Mechanical Properties between AZ91 Alloy and Nano-SiCp/AZ91 Composite Processed by Multi-Pass Forging Under Varying Passes and Temperatures. <i>Materials</i> , 2019 , 12,	3.5	4
15	Microstructure and mechanical properties of magnesium matrix composite reinforced with carbon nanotubes by ultrasonic vibration. <i>Rare Metals</i> , 2015 , 1	5.5	4
14	Enhanced mechanical properties of CNTs/Mg biomimetic laminated composites. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021 , 802, 140632	5.3	4
13	Effect of Necklace-Type Distribution of SiC Particles on Dry Sliding Wear Behavior of As-Cast AZ91D/SiCp Composites. <i>Crystals</i> , 2020 , 10, 296	2.3	3
12	The evolution of local stress during deformation twinning in a Mg-Gd-Y-Zn alloy. <i>Acta Materialia</i> , 2021 , 222, 117452	8.4	3
11	Processing and Mechanical Properties of TiAlC MAX Phase Reinforced AE44 Magnesium Composite. <i>Materials</i> , 2020 , 13,	3.5	2
10	Direct synthesis and modification of graphene in Mg melt by converting CO ₂ : A novel route to achieve high strength and stiffness in graphene/Mg composites. <i>Carbon</i> , 2022 , 186, 632-643	10.4	2
9	Aging behavior of the extruded SiCp-reinforced AZ91 Mg alloy composite. <i>Journal of Materials Research</i> , 2019 , 34, 335-343	2.5	2
8	Different Tribological Behaviors of SiCp/AZ91 Composites Induced by Tailoring the Distribution of SiC Particles. <i>Metals and Materials International</i> , 2021 , 27, 556-569	2.4	2
7	Improved strengthening efficiency of nanoreinforcements realized by a novel melt spinning process. <i>Journal of Materials Research</i> , 2018 , 33, 2711-2720	2.5	1
6	Effects of La Addition on the Microstructure, Thermal Conductivity and Mechanical Properties of Mg-3Al-0.3Mn Alloys.. <i>Materials</i> , 2022 , 15,	3.5	1

5	Fabrication and strengthening mechanisms of magnesium matrix composites with bimodal microstructure induced by graphene nanoplatelets. <i>Journal of Materials Research</i> , 2021 , 36, 764-774	2.5	1
4	A green and efficient method for preparing graphene using CO ₂ @Mg in-situ reaction and its application in high-performance lithium-ion batteries. <i>Journal of Alloys and Compounds</i> , 2022 , 902, 163700	5.7	0
3	Simultaneously enhanced mechanical properties and electromagnetic interference shielding performance of a graphene nanosheets (GNSs) reinforced magnesium matrix composite by GNSs induced laminated structure. <i>Journal of Alloys and Compounds</i> , 2021 , 898, 162847	5.7	0
2	Processing, microstructure and mechanical properties of a novel mg matrix composites reinforced with urchin-like CNTs@SiCp. <i>Diamond and Related Materials</i> , 2020 , 109, 108087	3.5	0
1	Microstructure and mechanical properties of M40/AZ91 composites fabricated by pressure infiltration method. <i>Composites Communications</i> , 2021 , 24, 100640	6.7	0