Xiao-Jun Wang

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/9033203/publications.pdf Version: 2024-02-01



#	Article	IF	CITATIONS
1	What is going on in magnesium alloys?. Journal of Materials Science and Technology, 2018, 34, 245-247.	5.6	487
2	Microstructure and strengthening mechanism of bimodal size particle reinforced magnesium matrix composite. Composites Part A: Applied Science and Manufacturing, 2012, 43, 1280-1284.	3.8	216
3	Graphene nanoplatelets induced heterogeneous bimodal structural magnesium matrix composites with enhanced mechanical properties. Scientific Reports, 2016, 6, 38824.	1.6	154
4	Magnesium matrix composite reinforced by nanoparticles – A review. Journal of Magnesium and Alloys, 2021, 9, 57-77.	5.5	146
5	Microstructure and mechanical properties of SiC nanoparticles reinforced magnesium matrix composites fabricated by ultrasonic vibration. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 5278-5282.	2.6	122
6	Microstructure and strengthening mechanism of carbon nanotubes reinforced magnesium matrix composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 597, 264-269.	2.6	112
7	Enhanced overall strength and ductility of magnesium matrix composites by low content of graphene nanoplatelets. Composites Part A: Applied Science and Manufacturing, 2017, 100, 183-193.	3.8	110
8	Processing, microstructure and mechanical properties of magnesium matrix nanocomposites fabricated by semisolid stirring assisted ultrasonic vibration. Journal of Alloys and Compounds, 2011, 509, 8664-8669.	2.8	106
9	Achieving high strength and ductility in graphene/magnesium composite via an in-situ reaction wetting process. Carbon, 2018, 139, 954-963.	5.4	106
10	Processing maps for hot working of ZK60 magnesium alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 464, 52-58.	2.6	104
11	Development of SiCp/AZ91 magnesium matrix nanocomposites using ultrasonic vibration. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 540, 123-129.	2.6	95
12	Effect of particle size on microstructure and mechanical properties of SiCp/AZ91 magnesium matrix composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 543, 158-163.	2.6	94
13	Effect of hot extrusion on microstructures and mechanical properties of SiC nanoparticles reinforced magnesium matrix composite. Journal of Alloys and Compounds, 2012, 512, 355-360.	2.8	93
14	Study on fracture behavior of particulate reinforced magnesium matrix composite using in situ SEM. Composites Science and Technology, 2007, 67, 2253-2260.	3.8	90
15	Microstructure and tensile property of the ECAPed pure magnesium. Journal of Alloys and Compounds, 2009, 470, 256-262.	2.8	89
16	Development of high mechanical properties and moderate thermal conductivity cast Mg alloy with multiple RE via heat treatment. Journal of Materials Science and Technology, 2018, 34, 1076-1084.	5.6	89
17	Microstructure evolution and mechanical properties of a particulate reinforced magnesium matrix composites forged at elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 1630-1635.	2.6	78
18	Effect of hot extrusion on the microstructure of a particulate reinforced magnesium matrix composite. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 465, 78-84.	2.6	77

#	Article	IF	CITATIONS
19	Microstructure, mechanical properties and fracture mechanism of Ti2AlC reinforced AZ91D composites fabricated by stir casting. Journal of Alloys and Compounds, 2017, 702, 199-208.	2.8	77
20	Characteristics and mechanical properties of magnesium matrix composites reinforced with micron/submicron/nano SiC particles. Journal of Alloys and Compounds, 2016, 686, 831-840.	2.8	76
21	Influence of SiC nanoparticles addition on the microstructural evolution and mechanical properties of AZ91 alloy during isothermal multidirectional forging. Materials Characterization, 2017, 124, 14-24.	1.9	72
22	Achieving ultra-high strengthening and toughening efficiency in carbon nanotubes/magnesium composites via constructing micro-nano layered structure. Composites Part A: Applied Science and Manufacturing, 2019, 119, 225-234.	3.8	71
23	Microstructure and tensile properties of micro-SiC particles reinforced magnesium matrix composites produced by semisolid stirring assisted ultrasonic vibration. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 8709-8714.	2.6	70
24	Microstructure and mechanical properties of SiCp/AZ91 composite deformed through a combination of forging and extrusion process. Materials & Design, 2010, 31, 3929-3932.	5.1	68
25	Multidirectional forging of AZ91 magnesium alloy and its effects on microstructures and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 624, 157-168.	2.6	68
26	Dynamic recrystallization behavior of particle reinforced Mg matrix composites fabricated by stir casting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 545, 38-43.	2.6	63
27	Effect of submicron size SiC particles on microstructure and mechanical properties of AZ31B magnesium matrix composites. Materials & Design, 2014, 54, 436-442.	5.1	62
28	Effect of bimodal size SiC particulates on microstructure and mechanical properties of AZ31B magnesium matrix composites. Materials & Design, 2013, 52, 1011-1017.	5.1	61
29	Ageing behavior of as-cast SiCp/AZ91 Mg matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 682, 491-500.	2.6	61
30	Distribution and integrity of carbon nanotubes in carbon nanotube/magnesium composites. Journal of Alloys and Compounds, 2014, 612, 330-336.	2.8	60
31	Dynamic recrystallization behavior during hot deformation and mechanical properties of 0.2μm SiCp reinforced Mg matrix composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 560, 824-830.	2.6	59
32	Significantly improved strength and ductility in bimodal-size grained microstructural magnesium matrix composites reinforced by bimodal sized SiCp over traditional magnesium matrix composites. Composites Science and Technology, 2015, 118, 85-93.	3.8	58
33	Beyond the dimensional limitation in bio-inspired composite: Insertion of carbon nanotubes induced laminated Cu composite and the simultaneously enhanced strength and toughness. Carbon, 2018, 130, 222-232.	5.4	58
34	Graphene nanoplatelets reinforced Mg matrix composite with enhanced mechanical properties by structure construction. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 733, 414-418.	2.6	58
35	Recent Research on the Deformation Behavior of Particle Reinforced Magnesium Matrix Composite: A Review. Acta Metallurgica Sinica (English Letters), 2019, 32, 413-425.	1.5	55
36	Microstructures and mechanical properties of AZ91 magnesium alloy processed by multidirectional forging under decreasing temperature conditions. Journal of Alloys and Compounds, 2014, 617, 979-987.	2.8	53

#	Article	IF	CITATIONS
37	Influences of extrusion parameters on microstructure and mechanical properties of particulate reinforced magnesium matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 6387-6392.	2.6	51
38	Isothermal forging of AZ91 reinforced with 10vol.% silicon carbon particles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 1707-1712.	2.6	50
39	Fabrication of bimodal size SiCp reinforced AZ31B magnesium matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 601, 58-64.	2.6	50
40	Effects of hot extrusion on microstructure and mechanical properties of Mg matrix composite reinforced with deformable TC4 particles. Journal of Magnesium and Alloys, 2020, 8, 421-430.	5.5	50
41	Self-lubricate and anisotropic wear behavior of AZ91D magnesium alloy reinforced with ternary Ti2AlC MAX phases. Journal of Materials Science and Technology, 2019, 35, 275-284.	5.6	47
42	Effect of extrusion temperatures on microstructure and mechanical properties of SiCp/Mg–Zn–Ca composite. Journal of Alloys and Compounds, 2012, 532, 78-85.	2.8	45
43	Microstructure and mechanical property of the ECAPed Mg2Si/Mg composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 516, 283-289.	2.6	44
44	Molten salt assisted solidification nanoprocessing of Al-TiC nanocomposites. Materials Letters, 2016, 185, 392-395.	1.3	44
45	Effects of bimodal size SiC particles on the microstructure evolution and fracture mechanism of AZ91 matrix at room temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 553, 74-79.	2.6	43
46	Influence of extrusion temperature and process parameter on microstructures and tensile properties of a particulate reinforced magnesium matrix nanocomposite. Materials & Design, 2012, 36, 199-205.	5.1	43
47	Microstructures and mechanical properties of SiCp/AZ91 magnesium matrix nanocomposites processed by multidirectional forging. Journal of Alloys and Compounds, 2015, 622, 1018-1026.	2.8	43
48	Damping capacities and tensile properties of magnesium matrix composites reinforced by graphite particles. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6816-6821.	2.6	42
49	Hot extrusion of SiCp/AZ91 Mg matrix composites. Transactions of Nonferrous Metals Society of China, 2012, 22, 1912-1917.	1.7	39
50	Evolution Behavior of Carbides in 2.25Cr-1Mo-0.25V Steel. Materials Transactions, 2009, 50, 2507-2511.	0.4	38
51	Multidirectional forging of magnesium matrix composites: Effect on microstructures and tensile properties. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7364-7368.	2.6	38
52	Microstructure and elevated tensile properties of submicron SiCp/AZ91 magnesium matrix composite. Materials & Design, 2012, 38, 110-114.	5.1	37
53	Characterization and strengthening mechanism of SiC nanoparticles reinforced magnesium matrix composite fabricated by ultrasonic vibration assisted squeeze casting. Journal of Materials Research, 2017, 32, 2609-2620.	1.2	37
54	In-situ analysis of slip transfer and heterogeneous deformation in tension of Mg-5.4Gd-1.8Y-1.5Zn alloy. Journal of Magnesium and Alloys, 2020, 8, 1186-1197.	5.5	37

#	Article	IF	CITATIONS
55	Hot deformation behavior of SiCp/AZ91 magnesium matrix composite fabricated by stir casting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 492, 481-485.	2.6	36
56	Microstructure and mechanical properties of SiCp/MgZnCa composites fabricated by stir casting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 60-67.	2.6	36
57	Role of Î ² Phase during Microarc Oxidation of Mg Alloy AZ91D and Corrosion Resistance of the Oxidation Coating. Journal of Materials Science and Technology, 2013, 29, 1129-1133.	5.6	36
58	Electromagnetic interference shielding effectiveness of magnesium alloy-fly ash composites. Journal of Alloys and Compounds, 2015, 650, 871-877.	2.8	36
59	Microstructural modification and strength enhancement by SiC nanoparticles in AZ31 magnesium alloy during hot rolling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 715, 49-61.	2.6	36
60	Development and strengthening mechanisms of a hybrid CNTs@SiCp/Mg-6Zn composite fabricated by a novel method. Journal of Magnesium and Alloys, 2021, 9, 1363-1372.	5.5	36
61	Effect of extrusion temperature on microstructures and damping capacities of Grp/AZ91 composite. Journal of Alloys and Compounds, 2010, 506, 688-692.	2.8	35
62	Effect of multidirectional forging on microstructures and tensile properties of a particulate reinforced magnesium matrix composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 7133-7139.	2.6	35
63	Evolutions of microstructure and mechanical properties for SiCp/AZ91 composites with different particle contents during extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 636, 138-147.	2.6	34
64	Fabrication, microstructure and mechanical properties of Mg matrix composites reinforced by high volume fraction of sphere TC4 particles. Journal of Magnesium and Alloys, 2016, 4, 286-294.	5.5	34
65	A Novel Melt Processing for Mg Matrix Composites Reinforced by Multiwalled Carbon Nanotubes. Journal of Materials Science and Technology, 2016, 32, 1303-1308.	5.6	34
66	Effect of ultrasonic vibration and solution heat treatment on microstructures and tensile properties of AZ91 alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 7484-7487.	2.6	33
67	Study on titanium-magnesium composites with bicontinuous structure fabricated by powder metallurgy and ultrasonic infiltration. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 81, 10-15.	1.5	33
68	Role of structural parameters on strength-ductility combination of laminated carbon nanotubes/copper composites. Composites Part A: Applied Science and Manufacturing, 2019, 116, 138-146.	3.8	33
69	High-compactness coating grown by plasma electrolytic oxidation on AZ31 magnesium alloy in the solution of silicate–borax. Applied Surface Science, 2012, 259, 362-366.	3.1	32
70	High temperature damping behavior of as-deformed Mg matrix influenced by micron and submicron SiCp. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 624, 62-70.	2.6	31
71	Fabrication of SiC particles-reinforced magnesium matrix composite by ultrasonic vibration. Journal of Materials Science, 2012, 47, 138-144.	1.7	28
72	Development of High Performance Magnesium Matrix Nanocomposites Using Nano-SiC Particulates as Reinforcement. Journal of Materials Engineering and Performance, 2015, 24, 3798-3807.	1.2	28

#	Article	IF	CITATIONS
73	Synthesis and characterization of textured Ti2AlC reinforced magnesium composite. Journal of Alloys and Compounds, 2018, 730, 191-195.	2.8	27
74	Microstructure evolutions of SiCp/AZ91 Mg matrix composites during hot compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 559, 139-146.	2.6	26
75	Effect of strain rate and temperature on the mechanical behavior of magnesium nanocomposites. International Journal of Mechanical Sciences, 2014, 89, 381-390.	3.6	26
76	Direct synthesis and modification of graphene in Mg melt by converting CO2: A novel route to achieve high strength and stiffness in graphene/Mg composites. Carbon, 2022, 186, 632-643.	5.4	26
77	Effect of SiC particles on microarc oxidation process of magnesium matrix composites. Applied Surface Science, 2013, 283, 906-913.	3.1	25
78	A Novel Method to Fabricate CNT/Mg–6Zn Composites with High Strengthening Efficiency. Acta Metallurgica Sinica (English Letters), 2014, 27, 909-917.	1.5	25
79	The evolution of local stress during deformation twinning in a Mg-Gd-Y-Zn alloy. Acta Materialia, 2022, 222, 117452.	3.8	25
80	Precipitate characteristics and synergistic strengthening realization of graphene nanoplatelets reinforced bimodal structural magnesium matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 724, 348-356.	2.6	24
81	Microstructure and tensile properties of SiC nanoparticles reinforced magnesium matrix composite prepared by multidirectional forging under decreasing temperature conditions. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 639, 465-473.	2.6	23
82	Microstructure and room temperature tensile properties of 1Âμm-SiCp/AZ31B magnesium matrix composite. Journal of Magnesium and Alloys, 2015, 3, 155-161.	5.5	22
83	Microstructure and mechanical properties of bio-inspired Cf/Ti/Mg laminated composites. Journal of Magnesium and Alloys, 2018, 6, 164-170.	5.5	22
84	Processing, Microstructure and Mechanical Properties of Ti6Al4V Particles-Reinforced Mg Matrix Composites. Acta Metallurgica Sinica (English Letters), 2016, 29, 940-950.	1.5	21
85	Effects of hot rolling on microstructure, macrotexture and mechanical properties of pre-extruded AZ31/SiC nanocomposite sheets. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 683, 15-23.	2.6	21
86	Hot rolling behavior of graphene/Cu composites. Journal of Alloys and Compounds, 2020, 816, 153204.	2.8	21
87	Microstructure evolution during superplastic deformation process and its impact on superplastic behavior of a Mg-Gd-Y-Zn-Zr alloy. Materials Characterization, 2021, 172, 110879.	1.9	21
88	Damping capacities and tensile properties in Grp/AZ91 and SiCp/Grp/AZ91 magnesium matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7873-7877.	2.6	18
89	Precise measurement of strain accommodation in a Mg-Gd-Y-Zn alloy using cross-correlation-based high resolution EBSD. Materials Characterization, 2020, 165, 110384.	1.9	18
90	Effects of Reinforced Particles on Dynamic Recrystallization of Mg Base Alloys during Hot Extrusion. Rare Metal Materials and Engineering, 2014, 43, 1821-1825.	0.8	17

#	Article	IF	CITATIONS
91	Elastic strain induced abnormal grain growth in graphene nanosheets (GNSs) reinforced copper (Cu) matrix composites. Acta Materialia, 2020, 200, 338-350.	3.8	16
92	Enhanced mechanical properties of CNTs/Mg biomimetic laminated composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 802, 140632.	2.6	16
93	Simultaneously enhanced mechanical properties and electromagnetic interference shielding performance of a graphene nanosheets (GNSs) reinforced magnesium matrix composite by GNSs induced laminated structure. Journal of Alloys and Compounds, 2022, 898, 162847.	2.8	14
94	Low frequency damping capacities of commercial pure magnesium. Transactions of Nonferrous Metals Society of China, 2012, 22, 1907-1911.	1.7	12
95	Interfacial Modification Using Matrix Alloying in Mg/CNT Composites for Improved Mechanical Performance. Journal of Materials Engineering and Performance, 2019, 28, 3041-3047.	1.2	12
96	Effects of (micron+submicron+nano) multisized SiC particles on microstructure and mechanical properties of magnesium matrix composites. Journal of Composite Materials, 2018, 52, 2055-2064.	1.2	10
97	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. Materials Science & amp; Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 797 140105	2.6	10
98	A green and efficient method for preparing graphene using CO2@Mg in-situ reaction and its application in high-performance lithium-ion batteries. Journal of Alloys and Compounds, 2022, 902, 163700.	2.8	10
99	Interfacial Characteristic of as-Deformed SiCp-Reinforced Magnesium Matrix Composite. Acta Metallurgica Sinica (English Letters), 2014, 27, 885-893.	1.5	9
100	Fabrication and strengthening mechanisms of magnesium matrix composites with bimodal microstructure induced by graphene nanoplatelets. Journal of Materials Research, 2021, 36, 764-774.	1.2	9
101	Direct conversion of CO2 to graphene via vapor–liquid reaction for magnesium matrix composites with structural and functional properties. Journal of Magnesium and Alloys, 2023, 11, 1206-1212.	5.5	9
102	Effects of La Addition on the Microstructure, Thermal Conductivity and Mechanical Properties of Mg-3Al-0.3Mn Alloys. Materials, 2022, 15, 1078.	1.3	9
103	Role of Al18B4O33 Whisker in MAO Process of Mg Matrix Composite and Protective Properties of the Oxidation Coating. Journal of Materials Science and Technology, 2013, 29, 267-272.	5.6	8
104	Effect of Necklace-Type Distribution of SiC Particles on Dry Sliding Wear Behavior of As-Cast AZ91D/SiCp Composites. Crystals, 2020, 10, 296.	1.0	8
105	Microstructure and mechanical properties of magnesium matrix composite reinforced with carbon nanotubes by ultrasonic vibration. Rare Metals, 2015, , 1.	3.6	7
106	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. Materials, 2019, 12, 625.	1.3	7
107	Achieving high strength and ductility in GNSs/Mg nanocomposites fabricated by in-situ liquid metallurgy combined with hot extrusion. Composites Part A: Applied Science and Manufacturing, 2022, 161, 107079.	3.8	7
108	Development of SiC Nanoparticles and Second Phases Synergistically Reinforced Mg-Based Composites Processed by Multi-Pass Forging with Varying Temperatures. Materials, 2018, 11, 126.	1.3	6

#	Article	IF	CITATIONS
109	Synergistic Strengthening of Mechanical Properties and Electromagnetic Interference Shielding Performance of Carbon Nanotubes (CNTs) Reinforced Magnesium Matrix Composites by CNTs Induced Laminated Structure. Materials, 2022, 15, 300.	1.3	6
110	Processing and Mechanical Properties of Ti2AlC MAX Phase Reinforced AE44 Magnesium Composite. Materials, 2020, 13, 995.	1.3	5
111	Microstructure and mechanical properties of M40/AZ91 composites fabricated by pressure infiltration method. Composites Communications, 2021, 24, 100640.	3.3	5
112	Decipher the ultra-high strengthening and toughening efficiency of GNS-MgO/Mg layered composite with in-situ enhanced interface. Carbon, 2022, 196, 783-794.	5.4	5
113	Different Tribological Behaviors of SiCp/AZ91 Composites Induced by Tailoring the Distribution of SiC Particles. Metals and Materials International, 2021, 27, 556-569.	1.8	4
114	Processing, microstructure and mechanical properties of a novel mg matrix composites reinforced with urchin-like CNTs@SiCp. Diamond and Related Materials, 2020, 109, 108087.	1.8	3
115	Aging behavior of the extruded SiCp-reinforced AZ91 Mg alloy composite. Journal of Materials Research, 2019, 34, 335-343.	1.2	2
116	Effect of Al Addition on Grain Refinement and Phase Transformation of the Mg-Gd-Y-Zn-Mn Alloy Containing LPSO Phase. Materials, 2022, 15, 1632.	1.3	2
117	Direct synthesis of graphene by blowing CO2 bubble in Mg melt for the seawater/oil pollution. Journal of Alloys and Compounds, 2022, 921, 165938.	2.8	2
118	Improved strengthening efficiency of nanoreinforcements realized by a novel melt spinning process. Journal of Materials Research, 2018, 33, 2711-2720.	1.2	1