Kaibo Nie

List of Publications by Year
in descending order

70 papers	2,599 citations	136740 32 h-index	197535 49 g-index
70 all docs	70 docs citations	70 times ranked	1055 citing authors

#	Article	IF	Citations
1	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
2	Effect of submicron size SiC particulates on microstructure and mechanical properties of AZ91 magnesium matrix composites. Journal of Alloys and Compounds, 2010, 504, 542-547.	2.8	156
3	Magnesium matrix composite reinforced by nanoparticles â€“ A review. Journal of Magnesium and Alloys, 2021, 9, 57-77.	5.5	146
4	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
5	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
6	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
7	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
8	Hot deformation behavior and workability characteristics of bimodal size SiCp/AZ91 magnesium matrix composite with processing map. Materials & Design, 2014, 64, 177-184.	5.1	74
9	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
10	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
11	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
12	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
13	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
14	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
15	Microstructure and mechanical properties of Mg-4Zn-xGd (x=0, 0.5, 1, 2) alloys. Journal of Magnesium and Alloys, 2020, 8, 441-451.	5.5	53
16	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
17	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
18	Effect of extrusion temperatures on microstructure and mechanical properties of SiCp/Mgâ€“Znâ€“Ca composite. Journal of Alloys and Compounds, 2012, 532, 78-85.	2.8	45

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19	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
20	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
21	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
22	Effect of extrusion parameters on microstructure, texture and mechanical properties of Mg-1.38Zn-0.17Y-0.12Ca (at. %) alloy. Materials Characterization, 2019, 151, 137-145.	1.9	42
23	Hot extrusion of SiCp/AZ91 Mg matrix composites. Transactions of Nonferrous Metals Society of China, 2012, 22, 1912-1917.	1.7	39
24	Multidirectional forging of magnesium matrix composites: Effect on microstructures and tensile properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 7364-7368.	2.6	38
25	Microstructure and mechanical properties of Mgâ€“Alâ€“Ca alloy influenced by SiCp size. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 647, 15-27.	2.6	38
26	Achieving high-strength magnesium matrix nanocomposite through synergistical effect of external hybrid (SiC+TiC) nanoparticles and dynamic precipitated phase. Journal of Alloys and Compounds, 2019, 771, 847-856.	2.8	38
27	Damping capacities and microstructures of magnesium matrix composites reinforced by graphite particles. Materials & Design, 2010, 31, 4862-4865.	5.1	37
28	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
29	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
30	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
31	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
32	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
33	Effect of extrusion temperature on microstructure and mechanical properties of a low-alloying and ultra-high strength Mgâ€“Znâ€“Caâ€“Mn matrix composite containing trace TiC nanoparticles. Journal of Magnesium and Alloys, 2020, 8, 676-691.	5.5	31
34	Fabrication of SiC particles-reinforced magnesium matrix composite by ultrasonic vibration. Journal of Materials Science, 2012, 47, 138-144.	1.7	28
35	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
36	Microstructure and tensile properties of SiC nanoparticles reinforced magnesium matrix composite prepared by multidirectional forging under decreasing temperature conditions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 639, 465-473.	2.6	23

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37	High strength TiCp/Mg-Zn-Ca magnesium matrix nanocomposites with improved formability at low temperature. Journal of Alloys and Compounds, 2019, 792, 267-278.	2.8	23
38	The effect of Zn/Ca ratio on the microstructure, texture and mechanical properties of dilute Mgâ€“Znâ€“Caâ€“Mn alloys that exhibit superior strength. Journal of Materials Science, 2020, 55, 3588-3604.	1.7	22
39	Effects of Li on Microstructures, Mechanical, and Biocorrosion Properties of Biodegradable Mg_{94â€x}Zn₂Y₄Li_x Alloys with Long Period Stacking Ordered Phase. Advanced Engineering Materials, 2017, 19, 1600606.	1.6	19
40	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
41	Analysis of hot deformation behavior and microstructure evolution of as-cast SiC nanoparticles reinforced magnesium matrix composite. Journal of Materials Research, 2016, 31, 3437-3447.	1.2	18
42	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
43	Microstructure, mechanical and bio-corrosion properties of Mgâ€“Znâ€“Zr alloys with minor Ca addition. Materials Science and Technology, 2017, 33, 9-16.	0.8	17
44	Influence of extrusion parameters on microstructure, texture and mechanical properties of a low Mn and high-Ca containing Mg-2.9Zn-1.1Ca-0.5â€¯Mn magnesium alloy. Journal of Materials Research and Technology, 2020, 9, 5264-5277.	2.6	17
45	Development of Mgâ€“Znâ€“Yâ€“Ca alloys containing icosahedral quasicrystal phase through trace addition of Y. Journal of Materials Research, 2018, 33, 2806-2816.	1.2	14
46	Improved tensile properties of low-temperature and low-speed extruded Mgâ€“Ï‡Alâ€“(4.8 â^¼Ï‡)Caâ€“0.6Mn alloys. Journal of Materials Research and Technology, 2020, 9, 11717-11730.	2.6	14
47	High-strength Mg₉₅Y₃Zn₁Ni₁ alloy with LPSO structure processed by hot rolling. Materials and Manufacturing Processes, 2017, 32, 62-68.	2.7	13
48	Fabrication of biodegradable magnesium matrix composite with ultrafine grains and high strength by adding TiC nanoparticles to Mg-1.12Ca-0.84Zn-0.23Mn (at.%) alloy. Materials Science and Engineering C, 2020, 107, 110360.	3.8	13
49	Effect of SiC Nanoparticles on Hot Deformation Behavior and Processing Maps of Magnesium Alloy AZ91. Nanomaterials, 2018, 8, 82.	1.9	12
50	Development of microstructure in submicron particles reinforced magnesium matrix composite processed by room temperature deformation. Materials Chemistry and Physics, 2015, 149-150, 21-26.	2.0	11
51	Effect of extrusion speed on mixed grain microstructure and tensile properties of a Mg-2.9Zn-1.1Ca-0.5Mn nanocomposite reinforced by a low mass fraction of TiCp. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 796, 140223.	2.6	11
52	Ultrahigh strength TiCnp/Mgâ€“2Zn-0.8Sr-0.2Ca magnesium matrix composite processed by combining multidirectional forging with extrusion. Composites Communications, 2021, 27, 100847.	3.3	11
53	Different effects of SiC dimensions on the microstructure and mechanical properties of magnesium matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 847, 143273.	2.6	11
54	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

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55	Hot Deformation Behavior and Processing Maps of SiC Nanoparticles and Second Phase Synergistically Reinforced Magnesium Matrix Composites. Nanomaterials, 2019, 9, 57.	1.9	10
56	Effects of SiCp Parameters on Microstructures, Interface Structure and Mechanical Property of Mg Bulk Composites Produced by Ultrasonic Vibration Processing. Transactions of the Indian Institute of Metals, 2018, 71, 1343-1350.	0.7	8
57	Simultaneous improvements in tensile strength and elongation of a Mg-2Zn-0.8Sr-0.2Ca alloy by a combination of microalloying and low content of TiC nanoparticles. Materials Letters, 2020, 260, 126951.	1.3	8
58	Effect of Nd on the microstructure and mechanical properties of Mgâ€“3Zn-0.5Zr alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 838, 142562.	2.6	8
59	Effect of hot extrusion on the microstructure and mechanical properties of SiCNWs/Mg-2Zn-0.1Y composite. Materials Characterization, 2022, 189, 111970.	1.9	8
60	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
61	Microstructure and Tensile Strength of Nano-TiCp/Mgâ€“Znâ€“Ca Magnesium Matrix Nanocomposites Processed by Multidirectional Forging. Metals and Materials International, 2021, 27, 1848-1858.	1.8	7
62	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
63	Microstructure and mechanical properties of TiCp/Mg-4Zn-0.5Ca nanocomposite in different processing conditions. Materials Research Express, 2019, 6, 066525.	0.8	5
64	Microstructure Evolution and Mechanical Properties of Long Period Stacking Ordered Mg96Gd3Ni1 Alloy with Al and Sr Additions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2710-2717.	1.1	4
65	Microstructure and Tensile Properties of n-SiCp/Mg-9%Al Composites Prepared by Ultrasonic Assisted Hot Pressing of Powder. Journal of Materials Engineering and Performance, 2017, 26, 1847-1855.	1.2	4
66	Microstructures and biocorrosion properties of biodegradable Mgâ€“Znâ€“Yâ€“Caâ€“‹i›x‹/i›Zr alloys. International Journal of Materials Research, 2018, 109, 621-628.	0.1	3
67	Hot deformation behaviour of as-extruded micrometre SiCp reinforced AZ91 composite. Materials Research Innovations, 2015, 19, S117-S121.	1.0	2
68	Microstructure characterization and indentation hardness testing behavior of Mg-8Sn-xAl-1Zn alloys. Journal Wuhan University of Technology, Materials Science Edition, 2015, 30, 1043-1048.	0.4	2
69	The effect of high Al content on the microstructure and mechanical properties of Mg-xAl alloys processed by equal channel angular pressing. International Journal of Materials Research, 2017, 108, 45-52.	0.1	1
70	Microstructure evolution and enhanced mechanical properties of hot rolled Mgâ€“3Alâ€“Zn alloy with the addition of Al and Si as a eutectic alloy. Journal of Materials Research, 2017, 32, 3564-3573.	1.2	0