

# Kun-kun Deng

## List of Publications by Year in descending order

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67  
papers

2,102  
citations

201575

27  
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254106

43  
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68  
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68  
docs citations

68  
times ranked

1002  
citing authors

#	ARTICLE	IF	CITATIONS
1	Work hardening and softening behavior of Mg-Zn-Ca alloy influenced by deformable Ti particles. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 833, 142336.	2.6	18
2	The corrosion properties of AZ91 alloy improved by the addition of trace submicron SiCp. <i>Materials Chemistry and Physics</i> , 2022, 286, 126143.	2.0	7
3	Effect of hot extrusion on the microstructure and mechanical properties of SiCNWs/Mg-2Zn-0.1Y composite. <i>Materials Characterization</i> , 2022, 189, 111970.	1.9	8
4	Microstructure and mechanical behavior of Mg-5Zn matrix influenced by particle deformation zone. <i>Journal of Materials Science and Technology</i> , 2021, 60, 8-20.	5.6	30
5	Synergistic effects of hybrid (SiC+TiC) nanoparticles and dynamic precipitates in the design of a high-strength magnesium matrix nanocomposite. <i>Materials Chemistry and Physics</i> , 2021, 259, 124048.	2.0	17
6	Synergistic Enhancement of the Strength-Ductility for Stir Casting SiCp/2024Al Composites by Two-Step Deformation. <i>Metals and Materials International</i> , 2021, 27, 5450-5461.	1.8	4
7	Microstructure and mechanical properties of SiCp/AZ91 composite processed with extrusion and EPT. <i>Materials Science and Technology</i> , 2021, 37, 269-279.	0.8	8
8	Microstructure and mechanical properties of Al/Mg/Al composite sheets containing trapezoidal shaped intermediate layer. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 811, 140989.	2.6	23
9	Effect of Interface on the Deep Drawability of Ti/Al Multilayered Composites. <i>Metals</i> , 2021, 11, 795.	1.0	5
10	Hot deformation behavior and dynamic recrystallization mechanism of an Mg-5wt.%Zn alloy with trace SiCp addition. <i>Journal of Materials Research and Technology</i> , 2021, 10, 422-437.	2.6	24
11	Microstructure and Corrosion Behavior of the As-Extruded Mg-4Zn-2Gd-0.5Ca Alloy. <i>Acta Metallurgica Sinica (English Letters)</i> , 2020, 33, 362-374.	1.5	12
12	Microstructure and tensile properties of magnesium matrix nanocomposite reinforced by high mass fraction of nano-sized particles including TiC and MgZn <sub>2</sub> . <i>Journal of Alloys and Compounds</i> , 2020, 819, 153348.	2.8	22
13	The effect of Zn/Ca ratio on the microstructure, texture and mechanical properties of dilute Mg-Zn-Ca-Mn alloys that exhibit superior strength. <i>Journal of Materials Science</i> , 2020, 55, 3588-3604.	1.7	22
14	Work hardening and softening behavior of pure Mg influenced by Zn addition investigated via in-situ neutron diffraction. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 772, 138827.	2.6	31
15	Improved workability of an Mg-5 wt.%Zn alloy by the addition of trace SiCp. <i>Materials Today Communications</i> , 2020, 25, 101474.	0.9	2
16	Degradation behavior of Mg-4Zn-2Ni alloy with high strength and high degradation rate. <i>Materials Chemistry and Physics</i> , 2020, 249, 123131.	2.0	30
17	Microstructure and mechanical properties of TiC nanoparticle-reinforced Mg-Zn-Ca matrix nanocomposites processed by combining multidirectional forging and extrusion. <i>Transactions of Nonferrous Metals Society of China</i> , 2020, 30, 2394-2412.	1.7	13
18	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. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 796, 140223.	2.6	11

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19	Improved tensile properties of low-temperature and low-speed extruded Mg <sub>4.8</sub> Al <sub>1</sub> Ca <sub>0.6</sub> Mn alloys. <i>Journal of Materials Research and Technology</i> , 2020, 9, 11717-11730.	2.6	14
20	Microstructure, Tensile Properties and Work Hardening Behavior of an Extruded Mg <sub>2</sub> Zn <sub>2</sub> Ca <sub>2</sub> Mn Magnesium Alloy. <i>Acta Metallurgica Sinica (English Letters)</i> , 2020, 33, 922-936.	1.5	13
21	Microstructure and mechanical properties of Mg-4Zn-xGd (x=0, 0.5, 1, 2) alloys. <i>Journal of Magnesium and Alloys</i> , 2020, 8, 441-451.	5.5	53
22	Significant Influence of Minor SiCp on Microstructure and Mechanical Properties of Pure Mg. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 1356-1365.	1.2	6
23	Hot tensile behavior and deformation mechanism of Mg <sub>5</sub> Al <sub>2</sub> Ca alloy influenced by SiC particles. <i>Mechanics of Materials</i> , 2020, 150, 103599.	1.7	12
24	Effect of Interface on Mechanical Properties of Ti/Al/Mg/Al/Ti Laminated Composites. <i>Materials Research</i> , 2020, 23, .	0.6	6
25	Microstructure and corrosion properties of Mg-4Zn-2Gd-0.5Ca alloy influenced by multidirectional forging. <i>Journal of Alloys and Compounds</i> , 2019, 770, 1208-1220.	2.8	43
26	Hot Deformation Behavior and Processing Maps of SiC Nanoparticles and Second Phase Synergistically Reinforced Magnesium Matrix Composites. <i>Nanomaterials</i> , 2019, 9, 57.	1.9	10
27	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.	1.5	55
28	Fabrication, microstructure and mechanical properties of the as-rolled ZW31/PMMCs laminate. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 761, 138043.	2.6	9
29	In vitro biodegradability of Mg <sub>2</sub> Gd <sub>x</sub> Zn alloys with different Zn contents and solution treatments. <i>Rare Metals</i> , 2019, 38, 620-628.	3.6	15
30	Microstructure, and Mechanical and Wear Properties of Grp/AZ91 Magnesium Matrix Composites. <i>Materials</i> , 2019, 12, 1190.	1.3	19
31	Microstructure, mechanical properties and corrosion properties of Mg-4Zn-xNi alloys for degradable fracturing ball applications. <i>Journal of Alloys and Compounds</i> , 2019, 787, 1290-1300.	2.8	48
32	High strength TiCp/Mg-Zn-Ca magnesium matrix nanocomposites with improved formability at low temperature. <i>Journal of Alloys and Compounds</i> , 2019, 792, 267-278.	2.8	23
33	Corrosion Resistance of AZ91Mg Alloy Modified by High-Current Pulsed Electron Beam. <i>Acta Metallurgica Sinica (English Letters)</i> , 2019, 32, 218-226.	1.5	8
34	Microstructures and mechanical properties of SiCp/Mg-xAl-2Ca composites collectively influenced by SiCp and Al content. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 725, 510-521.	2.6	18
35	Unique strengthening mechanisms of ultrahigh pressure Mg alloys. <i>Bioactive Materials</i> , 2018, 3, 250-254.	8.6	6
36	High strength SiCp/AZ91 composite assisted by dynamic precipitated Mg <sub>17</sub> Al <sub>12</sub> phase. <i>Journal of Alloys and Compounds</i> , 2018, 732, 328-335.	2.8	59

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37	Development of Mg-Zn-Ca alloys containing icosahedral quasicrystal phase through trace addition of Y. <i>Journal of Materials Research</i> , 2018, 33, 2806-2816.	1.2	14
38	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, 126.	1.3	6
39	Effect of SiC Nanoparticles on Hot Deformation Behavior and Processing Maps of Magnesium Alloy AZ91. <i>Nanomaterials</i> , 2018, 8, 82.	1.9	12
40	Unique corrosion resistance of ultrahigh pressure Mg-25Al binary alloys. <i>Corrosion Science</i> , 2018, 143, 229-239.	3.0	25
41	Flow stress and deformation behavior of fine-grained Mg matrix influenced by bimodal size SiCp. <i>Journal of Materials Research</i> , 2018, 33, 1723-1732.	1.2	3
42	Dynamic mechanical properties and constitutive relationship of particle-reinforced AZ91D composites. <i>Journal of Alloys and Compounds</i> , 2018, 767, 210-214.	2.8	4
43	High strength Mg-9Al serial alloy processed by slow extrusion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 697, 211-216.	2.6	69
44	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.	1.2	37
45	Microstructures, tensile properties and work hardening behavior of SiCp/Mg-Zn-Ca composites. <i>Journal of Alloys and Compounds</i> , 2017, 695, 2215-2223.	2.8	48
46	Effect of extrusion on corrosion properties of Mg-2Ca-xAl (x = 0, 2, 3, 5) alloys. <i>Corrosion Science</i> , 2017, 127, 280-290.	3.0	146
47	Aging behavior of AZ91 matrix influenced by 5 $\mu$ m SiCp: Investigation on the microstructure and mechanical properties. <i>Journal of Alloys and Compounds</i> , 2017, 727, 1263-1272.	2.8	28
48	Effect of duty cycle on preparation and corrosion behavior of electrodeposited calcium phosphate coatings on AZ91. <i>Applied Surface Science</i> , 2017, 426, 418-426.	3.1	35
49	Microstructure and mechanical properties of Mg-4Zn-0.5Ca alloy fabricated by the combination of forging, homogenization and extrusion process. <i>Journal of Alloys and Compounds</i> , 2017, 720, 196-206.	2.8	39
50	Analysis of hot deformation behavior and microstructure evolution of as-cast SiC nanoparticles reinforced magnesium matrix composite. <i>Journal of Materials Research</i> , 2016, 31, 3437-3447.	1.2	18
51	High temperature damping behavior controlled by submicron SiCp in bimodal size particle reinforced magnesium matrix composite. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 668, 55-58.	2.6	17
52	Effect of ultra-slow extrusion speed on the microstructure and mechanical properties of Mg-4Zn-0.5Ca alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 677, 367-375.	2.6	87
53	Dynamic Recrystallization Behavior of Bimodal Size SiCp-Reinforced Mg Matrix Composite during Hot Deformation. <i>Acta Metallurgica Sinica (English Letters)</i> , 2016, 29, 527-537.	1.5	19
54	Competition behavior of the strengthening effects in as-extruded AZ91 matrix: Influence of pre-existed Mg <sub>17</sub> Al <sub>12</sub> phase. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 656, 102-110.	2.6	43

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55	Effect of Extrusion Temperature on the Microstructure and Mechanical Properties of Mg <sup>5</sup> Al <sup>2</sup> Ca Alloy. <i>Acta Metallurgica Sinica (English Letters)</i> , 2015, 28, 1015-1023.	1.5	14
56	High temperature damping behavior of as-deformed Mg matrix influenced by micron and submicron SiCp. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 624, 62-70.	2.6	31
57	Microstructures and mechanical properties of Mg <sup>4</sup> Al <sup>4</sup> Ca alloys affected by Ca/Al ratio. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 636, 279-288.	2.6	100
58	Hot deformation behavior and processing maps of fine-grained SiCp/AZ91 composite. <i>Materials &amp; Design</i> , 2015, 67, 72-81.	5.1	69
59	Microstructure stability of as-extruded bimodal size SiCp/AZ91 composite. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 615, 489-496.	2.6	15
60	Effects of volume ratio on the microstructure and mechanical properties of particle reinforced magnesium matrix composite. <i>Materials &amp; Design</i> , 2014, 63, 672-677.	5.1	42
61	Effect of Ca addition on the microstructure and tensile properties of Mg <sup>4</sup> Zn <sup>2</sup> Gd alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 609, 1-6.	2.6	37
62	Microstructure and mechanical properties of SiCp/Mg <sup>4</sup> Al <sup>4</sup> Zn composites containing Mg <sub>17</sub> Al <sub>12</sub> phases processed by low-speed extrusion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 610, 243-249.	2.6	48
63	Effects of bimodal size SiC particles on the microstructure evolution and fracture mechanism of AZ91 matrix at room temperature. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 553, 74-79.	2.6	43
64	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.	3.8	216
65	Microstructure evolution mechanism of micron particle reinforced magnesium matrix composite at room temperature. <i>Materials Chemistry and Physics</i> , 2012, 134, 581-584.	2.0	27
66	Microstructure and elevated tensile properties of submicron SiCp/AZ91 magnesium matrix composite. <i>Materials &amp; Design</i> , 2012, 38, 110-114.	5.1	37
67	Microstructure and mechanical properties of SiCp/AZ91 composite deformed through a combination of forging and extrusion process. <i>Materials &amp; Design</i> , 2010, 31, 3929-3932.	5.1	68