

# Wen-Bo Du

## List of Publications by Year in descending order

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61  
papers

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docs citations

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times ranked

883  
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on thermal conductivity of magnesium and its alloys. <i>Journal of Magnesium and Alloys</i> , 2020, 8, 78-90.	5.5	167
2	Synthesis of CNT-reinforced AZ31 magnesium alloy composites with uniformly distributed CNTs. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 628, 350-357.	2.6	106
3	Microstructure, texture and mechanical properties of as-extruded Mg-4Zn-1Er alloys containing W-phase. <i>Journal of Alloys and Compounds</i> , 2014, 602, 32-39.	2.8	61
4	Effects of trace Ca/Sn addition on corrosion behaviors of biodegradable Mg-4Zn-0.2Mn alloy. <i>Journal of Magnesium and Alloys</i> , 2018, 6, 1-14.	5.5	48
5	In situ prepared amorphous FeCoO-Polyaniline/multiwalled carbon nanotube nanohybrids as efficient oxygen evolution catalysts for rechargeable Zn-air batteries. <i>Journal of Power Sources</i> , 2018, 399, 337-342.	4.0	43
6	Effective dispersion of multi-walled carbon nanotubes in aqueous solution using an ionic-gemini dispersant. <i>Journal of Colloid and Interface Science</i> , 2018, 512, 750-757.	5.0	40
7	Remarkably enhanced mechanical properties of Mg-8Gd-1Er-0.5Zr alloy on the route of extrusion, rolling and aging. <i>Materials Letters</i> , 2018, 212, 155-158.	1.3	37
8	Effect of Zn/Er weight ratio on phase formation and mechanical properties of as-cast Mg-4Zn-1Er alloys. <i>Materials &amp; Design</i> , 2012, 35, 259-265.	5.1	35
9	Significantly enhancing the strength+ ductility combination of Mg-9Al alloy using multi-walled carbon nanotubes. <i>Journal of Alloys and Compounds</i> , 2019, 790, 974-982.	2.8	35
10	PdCo bimetallic nano-electrocatalyst as effective air-cathode for aqueous metal-air batteries. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 5001-5011.	3.8	31
11	Icosahedral quasicrystalline phase in an as-cast Mg-Zn-Er alloy. <i>Rare Metals</i> , 2009, 28, 297-301.	3.6	29
12	Microstructure, texture and mechanical properties of as-extruded Mg-4Zn-1Er alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 581, 31-38.	2.6	29
13	Microstructures and mechanical properties of Mg-13Gd-5Er-1Zn-0.3Zr alloy. <i>Materials &amp; Design</i> , 2014, 58, 277-283.	5.1	29
14	Combination of enhanced thermal conductivity and strength of MWCNTs reinforced Mg-6Zn matrix composite. <i>Journal of Alloys and Compounds</i> , 2020, 838, 155573.	2.8	29
15	Effect of microstructure evolution on mechanical property of extruded Mg-12Gd-2Er-1Zn-0.6Zr alloys. <i>Journal of Magnesium and Alloys</i> , 2015, 3, 23-28.	5.5	26
16	Mechanical properties and corrosion behaviors of Mg-4Zn-0.2Mn-0.2Ca alloy after long term in vitro degradation. <i>Transactions of Nonferrous Metals Society of China</i> , 2020, 30, 363-372.	1.7	26
17	Effects of grain refinement and precipitate strengthening on mechanical properties of double-extruded Mg-12Gd-2Er-0.4Zr alloy. <i>Journal of Alloys and Compounds</i> , 2022, 898, 162873.	2.8	25
18	Tensile and creep behaviors of Mg-5Zn-2.5Er alloy improved by icosahedral quasicrystal. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 1255-1259.	2.6	23

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19	Hot deformation behaviors and processing maps of Mg-Zn-Er alloys based on Gleeble-1500 hot compression simulation. Transactions of Nonferrous Metals Society of China, 2016, 26, 3123-3134.	1.7	21
20	Compelling mechanical properties of carbon nanotubes reinforced pure magnesium composite by effective interface bonding of Mg <sub>2</sub> Ni. Journal of Alloys and Compounds, 2017, 727, 963-969.	2.8	20
21	Development of extraordinary high-strength-toughness Mg alloy via combined processes of repeated plastic working and hot extrusion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 573, 127-131.	2.6	19
22	Microstructure, texture and mechanical properties of Mg-Zn-Er alloys containing I-phase and W-phase simultaneously. Journal of Alloys and Compounds, 2016, 665, 76-85.	2.8	19
23	Obtaining Ultra-High Strength and Ductility in a Mg-Gd-Er-Zn-Zr Alloy via Extrusion, Pre-deformation and Two-Stage Aging. Acta Metallurgica Sinica (English Letters), 2021, 34, 39-44.	1.5	19
24	Effect of trace addition of Al on microstructure, texture and tensile ductility of Mg-6Zn-0.5Er alloy. Journal of Magnesium and Alloys, 2016, 4, 135-139.	5.5	18
25	Effects of heat treatment on microstructure and mechanical properties of Mg-5Zn-0.63Er alloy. Transactions of Nonferrous Metals Society of China, 2013, 23, 59-65.	1.7	17
26	Precipitate characteristics and their effects on the mechanical properties of as-extruded Mg-Gd-Li-Y-Zn alloy. Journal of Materials Science and Technology, 2021, 88, 21-35.	5.6	17
27	Multi-walled carbon nanotubes supported binary PdSn nanocatalyst as effective catalytic cathode for Mg-air battery. Journal of Electroanalytical Chemistry, 2018, 826, 217-224.	1.9	14
28	Improved mechanical performance of double-pass extruded Mg-Gd-Er-Zr alloys with various rare earth contents. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 840, 142922.	2.6	14
29	Effect of aging on microstructure of Mg-Zn-Er alloys. Journal of Rare Earths, 2009, 27, 1042-1045.	2.5	13
30	Microstructures and mechanical properties of homogenization and isothermal aging Mg-Gd-Er-Zn-Zr alloy. Rare Metals, 2016, 35, 443-449.	3.6	13
31	Cooling rate controlled basal precipitates and age hardening response of solid-soluted Mg-Gd-Er-Zn-Zr alloy. Journal of Magnesium and Alloys, 2020, .	5.5	13
32	Microstructure, mechanical properties and stretch formability of as-rolled Mg alloys with Zn and Er additions. Rare Metals, 2021, 40, 2179-2187.	3.6	13
33	Microstructure and mechanical properties of AZ31 magnesium alloy reinforced by I-phase. Rare Metals, 2019, 38, 733-738.	3.6	12
34	Microstructures and mechanical properties of as-extruded Mg-8Gd-2Y-1Zn-6Li alloy. Journal of Alloys and Compounds, 2021, 864, 158826.	2.8	12
35	New strategy to solve the ambient strength-ductility dilemma in precipitation-strengthened Mg-Gd alloys via Li addition. Scripta Materialia, 2022, 220, 114901.	2.6	12
36	Microstructures and mechanical properties of quasicrystal reinforced AZ31 matrix composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 530, 446-451.	2.6	11

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37	Microstructure and mechanical properties of extruded Mg <sub>6</sub> Zn <sub>1</sub> Er alloys. Transactions of Nonferrous Metals Society of China, 2013, 23, 2863-2873.	1.7	11
38	Effect of pre-solution treatment on mechanical properties of as-extruded Mg <sub>96.9</sub> Zn <sub>0.43</sub> Gd <sub>2.48</sub> Zr <sub>0.15</sub> alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 674, 33-39.	2.6	11
39	Creep properties and controlled creep mechanism of as-cast Mg-5Zn-2.5Er alloy. Transactions of Nonferrous Metals Society of China, 2010, 20, 1212-1216.	1.7	9
40	Microstructure evolution of Mg <sub>9</sub> Gd <sub>2</sub> Er <sub>0.4</sub> Zr alloy during solid solution treatment. Transactions of Nonferrous Metals Society of China, 2013, 23, 593-598.	1.7	9
41	Dual phases strengthening behavior of Mg <sub>10</sub> Gd <sub>1</sub> Er <sub>1</sub> Zn <sub>0.6</sub> Zr alloy. Transactions of Nonferrous Metals Society of China, 2020, 30, 635-646.	1.7	9
42	Precipitate Characteristics and Mechanical Performance of Cast Mg <sub>6</sub> RE <sub>1</sub> Zn <sub>x</sub> Ca <sub>0.3</sub> Zr (x=0 and 0.4) T <sub>1</sub> ETQq0 0 C	1.5	9
43	Effects of Ca addition on microstructure, electrochemical behavior and magnesium-air battery performance of Mg-2Zn-xCa alloys. Journal of Electroanalytical Chemistry, 2022, 904, 115944.	1.9	9
44	Effect of the Ca <sub>2</sub> Mg <sub>6</sub> Zn <sub>3</sub> Phase on the Corrosion Behavior of Biodegradable Mg-4.0Zn-0.2Mn-xCa Alloys in Hank's Solution. Materials, 2022, 15, 2079.	1.3	9
45	Thermodynamic calculation of intermetallic compounds in AZ91 alloy containing calcium. Transactions of Nonferrous Metals Society of China, 2006, 16, 392-396.	1.7	8
46	Stable icosahedral phase in Mg <sub>44</sub> Zn <sub>44</sub> Gd <sub>12</sub> alloy. Journal of Rare Earths, 2012, 30, 503-506.	2.5	8
47	Microstructure evolutions of Mg-8Gd-2Er (wt.%) alloy during isothermal ageing at 200 Å°C. Journal of Rare Earths, 2012, 30, 1168-1171.	2.5	8
48	Effect of Zn addition on microstructure and mechanical properties of as-cast Mg <sub>2</sub> Er alloy. Transactions of Nonferrous Metals Society of China, 2014, 24, 3792-3796.	1.7	8
49	Effects of secondary phases on texture and mechanical properties of as-extruded Mg <sub>6</sub> Zn <sub>1</sub> Er alloys. Transactions of Nonferrous Metals Society of China, 2018, 28, 890-895.	1.7	8
50	Effect of temperature on microstructure and texture evolution of Mg-Zn-Er alloy during hot compression. Transactions of Nonferrous Metals Society of China, 2018, 28, 2214-2225.	1.7	8
51	Microstructure and strengthening mechanisms of Mg-6Al-6Nd alloy. Rare Metals, 2010, 29, 55-61.	3.6	7
52	Mechanical properties and ageing response of the Mg <sub>6</sub> Zn <sub>1</sub> Er alloy produced by a new method of RPW process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 567-572.	2.6	7
53	Study on the behaviors of multi-walled carbon nanotubes modified by gemini sulfonate dispersant and their reinforced magnesium matrix composite. Materials Chemistry and Physics, 2019, 229, 279-285.	2.0	7
54	Microstructures and mechanical properties of Mg-6Gd-1Er-0.5Zr alloy sheets produced with different rolling temperatures. Journal of Alloys and Compounds, 2022, 893, 162213.	2.8	7

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55	Failure mechanism of as-cast Mg-6Zn-2Er alloy during tensile test at room temperature. Transactions of Nonferrous Metals Society of China, 2013, 23, 3193-3199.	1.7	6
56	Precipitation behavior of 14H-LPSO structure in Mg-12Gd-2Er-1Zn-0.6Zr Alloy. Rare Metals, 2016, 35, 367-373.	3.6	5
57	Microstructural control and hardening response of Mg-6Zn-0.5Er-0.5Ca alloy. Rare Metals, 2016, 35, 526-531.	3.6	4
58	Creep mechanism of as-cast Mg-6Al-6Nd alloy. Rare Metals, 2010, 29, 538-541.	3.6	3
59	Microstructure and electrochemical properties of La <sub>0.8-x</sub> Mg <sub>0.2</sub> Ni <sub>3.1</sub> Co <sub>0.3</sub> Al <sub>0.1</sub> (x=0, 0.1, 0.2, 0.3) alloys. Rare Metals, 2017, 36, 645-650.	3.6	3
60	Effect of Secondary Extrusion on the Microstructure and Mechanical Properties of Mg-12Gd-2Er-0.4Zr Alloy. Journal of Materials Engineering and Performance, 2021, 30, 8996-9007.	1.2	3
61	Sensitivity Analysis of Laser Effect on Mg-Gd-Er Alloy. Microscopy and Microanalysis, 2017, 23, 714-715.	0.2	0