Er-Lin Zhang

List of Publications by Year
in descending order

112 papers	6,991 citations	61984 43 h-index	60623 81 g-index
112 all docs	112 docs citations	112 times ranked	4529 citing authors

#	Article	IF	Citations
1	PEO coating on Mg-Ag alloy: The incorporation and release of Ag species. Journal of Magnesium and Alloys, 2023, 11, 2182-2195.	11.9	15
2	Improvement in antibacterial ability and cell cytotoxicity of Tiâ€"Cu alloy by anodic oxidation. Rare Metals, 2022, 41, 594-609.	7.1	15
3	Antibacterial ability and biocompatibility of fluorinated titanium by plasma-based surface modification. Rare Metals, 2022, 41, 689-699.	7.1	11
4	A nano-structured TiO2/CuO/Cu2O coating on Ti-Cu alloy with dual function of antibacterial ability and osteogenic activity. Journal of Materials Science and Technology, 2022, 97, 201-212.	10.7	29
5	Optimization of mechanical and antibacterial properties of Ti-3wt%Cu alloy through cold rolling and annealing. Rare Metals, 2022, 41, 610-620.	7.1	15
6	A novel Ti-Au alloy with strong antibacterial properties and excellent biocompatibility for biomedical application. Materials Science and Engineering C, 2022, 133, 112653.	7.3	12
7	To improve the angiogenesis of endothelial cells on Ti-Cu alloy by the synergistic effects of Cu ions release and surface nanostructure. Surface and Coatings Technology, 2022, 433, 128116.	4.8	5
8	Tribocorrosion behavior of antibacterial Tiâ€"Cu sintered alloys in simulated biological environments. Rare Metals, 2022, 41, 1921-1932.	7.1	7
9	Ag distribution and corrosion behaviour of the plasma electrolytic oxidized antibacterial Mg-Ag alloy. Electrochimica Acta, 2022, 411, 140089.	5.2	16
10	On the effect of trace Si on accelerating the corrosion of Mg-Mn alloys. Corrosion Science, 2022, 201, 110258.	6.6	7
11	Design and preparation of a biomedical titanium alloy with low elastic modulus and high antibacterial property based on Ti-Mo-Ag system. Journal of Alloys and Compounds, 2022, 908, 164639.	5.5	19
12	An antibacterial mechanism of titanium alloy based on micro-area potential difference induced reactive oxygen species. Journal of Materials Science and Technology, 2022, 119, 75-86.	10.7	12
13	Reduced inflammatory response of macrophages on nanostructured surface of Ti-Cu alloy. Materials Letters, 2022, 319, 132298.	2.6	0
14	Construction of a Rough Surface with Submicron Ti2Cu Particle on Ti-Cu Alloy and Its Effect on the Antibacterial Properties and Cell Biocompatibility. Metals, 2022, 12, 1008.	2.3	5
15	The Influence of Copper Content on the Elastic Modulus and Antibacterial Properties of Ti-13Nb-13Zr-xCu Alloy. Metals, 2022, 12, 1132.	2.3	1
16	Mechanism of Mn on inhibiting Fe-caused magnesium corrosion. Journal of Magnesium and Alloys, 2021, 9, 676-685.	11.9	29
17	Enhancement of Corrosion Resistance and Biological Performances of Cu-Incorporated Hydroxyapatite/TiO₂ Coating by Adjusting Cu Chemical Configuration and Hydroxyapatite Contents. ACS Applied Bio Materials, 2021, 4, 903-917.	4.6	19
18	The osteoimmunomodulatory effect of nanostructured TiF _x /TiO _x coating on osteogenesis induction. Biomedical Materials (Bristol), 2021, 16, 045041.	3.3	4

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19	Effect of Ag on cathodic activation and corrosion behaviour of Mg-Mn-Ag alloys. Corrosion Science, 2021, 185, 109408.	6.6	31
20	Development of a low elastic modulus and antibacterial Ti-13Nb-13Zr-5Cu titanium alloy by microstructure controlling. Materials Science and Engineering C, 2021, 126, 112116.	7.3	23
21	A novel biomedical titanium alloy with high antibacterial property and low elastic modulus. Journal of Materials Science and Technology, 2021, 81, 13-25.	10.7	61
22	Antibacterial metals and alloys for potential biomedical implants. Bioactive Materials, 2021, 6, 2569-2612.	15.6	283
23	Construction of a TiO2/Cu2O multifunctional coating on Ti-Cu alloy and its influence on the cell compatibility and antibacterial properties. Surface and Coatings Technology, 2021, 421, 127438.	4.8	19
24	Antibacterial effect of Ti Ag alloy motivated by Ag-containing phases. Materials Science and Engineering C, 2021, 128, 112266.	7.3	25
25	Enhanced antibacterial activity of Ti-Cu alloy by selective acid etching. Surface and Coatings Technology, 2021, 421, 127478.	4.8	15
26	The synergistic effect of Ag and ZnO on the microstructure, corrosion resistance and in vitro biological performance of titania coating. Surface and Coatings Technology, 2021, 426, 127798.	4.8	11
27	Effect of Cu on the Tribocorrosion Behavior of Antibacterial CoCrMo Alloys in Simulated Biological Environment. Journal of Tribology, 2021, 143, .	1.9	2
28	Effect of fluorination/oxidation level of nano-structured titanium on the behaviors of bacteria and osteoblasts. Applied Surface Science, 2020, 502, 144077.	6.1	10
29	What controls the antibacterial activity of Ti-Ag alloy, Ag ion or Ti2Ag particles?. Materials Science and Engineering C, 2020, 109, 110548.	7.3	59
30	Microstructural characterization and in vitro biological performances of Ag, Zn co-incorporated TiO2 coating. Ceramics International, 2020, 46, 29160-29172.	4.8	19
31	A potential strategy for in-stent restenosis: Inhibition of migration and proliferation of vascular smooth muscle cells by Cu ion. Materials Science and Engineering C, 2020, 115, 111090.	7.3	9
32	Novel CoCrWNi alloys with Cu addition: Microstructure, mechanical properties, corrosion properties and biocompatibility. Journal of Alloys and Compounds, 2020, 824, 153924.	5.5	14
33	Effect of ultrasonic micro-arc oxidation on the antibacterial properties and cell biocompatibility of Ti-Cu alloy for biomedical application. Materials Science and Engineering C, 2020, 115, 110921.	7.3	48
34	Antibacterial activities and cell responses of Tiâ€"Ag alloys with a hybrid micro- to nanostructured surface. Journal of Biomaterials Applications, 2020, 34, 1368-1380.	2.4	8
35	Effect of Cu on Martensite Transformation of CoCrMo alloy for biomedical application. Journal of Materials Science and Technology, 2020, 52, 127-135.	10.7	17
36	Co-Cr-Mo-Cu alloys for clinical implants with osteogenic effect by increasing bone induction, formation and development in a rabbit model. Burns and Trauma, 2020, 8, tkaa036.	4.9	8

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37	Improvement in antibacterial properties and cytocompatibility of titanium by fluorine and oxygen dual plasma-based surface modification. Applied Surface Science, 2019, 463, 261-274.	6.1	35
38	Effect of heat treatment on the bio-corrosion properties and wear resistance of antibacterial Co-29Cr-6Mo-xCu alloys. Journal of Materials Science: Materials in Medicine, 2019, 30, 112.	3.6	5
39	Biocorrosion properties of Tiâ€“3Cu alloy in F ion-containing solution and acidic solution and biocompatibility. Rare Metals, 2019, 38, 503-511.	7.1	16
40	Role of Cu element in biomedical metal alloy design. Rare Metals, 2019, 38, 476-494.	7.1	110
41	In vivo antibacterial property of Ti-Cu sintered alloy implant. Materials Science and Engineering C, 2019, 100, 38-47.	7.3	59
42	Anti-bacterium influenced corrosion effect of antibacterial Ti-3Cu alloy in Staphylococcus aureus suspension for biomedical application. Materials Science and Engineering C, 2019, 94, 376-384.	7.3	37
43	Indirectly extruded biodegradable Zn-0.05wt%Mg alloy with improved strength and ductility: In vitro and in vivo studies. Journal of Materials Science and Technology, 2018, 34, 1618-1627.	10.7	137
44	In vitro bioactivity, tribological property, and antibacterial ability of Caâ€“Si-based coatings doped with cu particles in-situ fabricated by laser cladding. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	3
45	Effect of iron content on the corrosion of pure magnesium: Critical factor for iron tolerance limit. Corrosion Science, 2018, 139, 421-429.	6.6	56
46	Optimization of mechanical properties, biocorrosion properties and antibacterial properties of wrought Ti-3Cu alloy by heat treatment. Bioactive Materials, 2018, 3, 28-38.	15.6	55
47	Tribocorrosion Behavior of Tiâ€“Cu Alloy in Hankâ€™s Solution for Biomedical Application. Journal of Bio- and Tribo-Corrosion, 2018, 4, 1.	2.6	8
48	Hot deformation behavior of an antibacterial Coâ€“29Crâ€“6Moâ€“1.8Cu alloy and its effect on mechanical property and corrosion resistance. Journal of Materials Science and Technology, 2018, 34, 523-533.	10.7	17
49	Antibacterial activities and biocompatibilities of Ti-Ag alloys prepared by spark plasma sintering and acid etching. Materials Science and Engineering C, 2018, 92, 121-131.	7.3	83
50	Effect of nano/micro-Ag compound particles on the bio-corrosion, antibacterial properties and cell biocompatibility of Ti-Ag alloys. Materials Science and Engineering C, 2017, 75, 906-917.	7.3	102
51	Influence of Dy in solid solution on the degradation behavior of binary Mg-Dy alloys in cell culture medium. Materials Science and Engineering C, 2017, 75, 1351-1358.	7.3	28
52	Comparison study on the solution-based surface biomodification of titanium: Surface characteristics and cell biocompatibility. Surface and Coatings Technology, 2017, 329, 109-119.	4.8	18
53	The anti-bacterial activity of titanium-copper sintered alloy against <i>Porphyromonas gingivalis</i> <i>in vitro </i>. Dental Materials Journal, 2016, 35, 659-667.	1.8	31
54	A new antibacterial Co-Cr-Mo-Cu alloy: Preparation, biocorrosion, mechanical and antibacterial property. Materials Science and Engineering C, 2016, 69, 134-143.	7.3	66

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55	Effect of the existing form of Cu element on the mechanical properties, bio-corrosion and antibacterial properties of Ti-Cu alloys for biomedical application. Materials Science and Engineering C, 2016, 69, 1210-1221.	7.3	174
56	Effect of extrusion processing on the microstructure, mechanical properties, biocorrosion properties and antibacterial properties of Ti-Cu sintered alloys. Materials Science and Engineering C, 2016, 69, 760-768.	7.3	57
57	Optimization of mechanical properties, biocorrosion properties and antibacterial properties of as-cast Tiâ€"Cu alloys. Biomedical Materials (Bristol), 2016, 11, 065001.	3.3	66
58	Microstructure, mechanical properties, bio-corrosion properties and antibacterial properties of Tiâ€"Ag sintered alloys. Materials Science and Engineering C, 2016, 62, 350-360.	7.3	97
59	A ferulic acid (FA)â€eluting system for biodegradable magnesium stent: <scp>C</scp>ells response of HUVECs. Journal of Biomedical Materials Research - Part A, 2015, 103, 2758-2769.	4.0	3
60	Biocorrosion properties of antibacterial Tiâ€"10Cu sintered alloy in several simulated biological solutions. Journal of Materials Science: Materials in Medicine, 2015, 26, 142.	3.6	19
61	Effect of surface treatments on the surface morphology, corrosion property, and antibacterial property of Tiâ€"10Cu sintered alloy. Biomedical Materials (Bristol), 2015, 10, 045009.	3.3	20
62	Blood compatibility of a ferulic acid (FA)-eluting PHBHHx system for biodegradable magnesium stent application. Materials Science and Engineering C, 2015, 52, 37-45.	7.3	20
63	Biocompatibility of antibacterial Tiâ€"Cu sintered alloy: in vivo bone response. Journal of Materials Science: Materials in Medicine, 2015, 26, 265.	3.6	28
64	Influence of Cu content on the cell biocompatibility of Tiâ€"Cu sintered alloys. Materials Science and Engineering C, 2015, 46, 148-157.	7.3	116
65	The antibacterial properties and biocompatibility of a Tiâ€"Cu sintered alloy for biomedical application. Biomedical Materials (Bristol), 2014, 9, 025013.	3.3	64
66	Microstructure, corrosion properties and bio-compatibility of calcium zinc phosphate coating on pure iron for biomedical application. Materials Science and Engineering C, 2014, 34, 201-206.	7.3	55
67	Effect of Cu content on the antibacterial activity of titaniumâ€"copper sintered alloys. Materials Science and Engineering C, 2014, 35, 392-400.	7.3	229
68	A new antibacterial titaniumâ€"copper sintered alloy: Preparation and antibacterial property. Materials Science and Engineering C, 2013, 33, 4280-4287.	7.3	247
69	An unprecedented Agâ€"pipemidic acid complex with helical structure: Synthesis, structure and interaction with CT-DNA. Journal of Molecular Structure, 2013, 1045, 29-34.	3.6	14
70	Microstructure and corrosion resistance of ultrasonic micro-arc oxidation biocoatings on magnesium alloy. Journal of Advanced Ceramics, 2013, 2, 227-234.	17.4	31
71	Two metal-pipemidic acid complexes modifying Keggin polyoxometalates. Journal of Coordination Chemistry, 2013, 66, 977-985.	2.2	10
72	Biocorrosion property and cytocompatibility of calcium phosphate coated Mg alloy. Transactions of Nonferrous Metals Society of China, 2012, 22, 2014-2020.	4.2	17

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73	Effects of Zn on the microstructure, mechanical property and bio-corrosion property of Mgâ€“3Ca alloys for biomedical application. Materials Chemistry and Physics, 2011, 125, 568-575.	4.0	132
74	The formation mechanism and biocorrosion property of CaSiO₃/CaHPO₄ Â· 2H₂O composite conversion coating on the extruded Mgâ€Znâ€Ca alloy for bone implant applicationÂ·. Surface and Interface Analysis, 2011, 43, 791-794.	1.8	9
75	Surface microstructure and cell compatibility of calcium silicate and calcium phosphate composite coatings on Mgâ€“Znâ€“Mnâ€“Ca alloys for biomedical application. Colloids and Surfaces B: Biointerfaces, 2011, 83, 96-102.	5.0	47
76	Biocorrosion properties and blood and cell compatibility of pure iron as a biodegradable biomaterial. Journal of Materials Science: Materials in Medicine, 2010, 21, 2151-2163.	3.6	122
77	Effect of Y on the bio-corrosion behavior of extruded Mgâ€“Znâ€“Mn alloy in Hank's solution. Materials Science and Engineering C, 2010, 30, 167-174.	7.3	112
78	Effect of Zn on the microstructure and mechanical properties of Mgâ€“Si alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 3195-3199.	5.6	29
79	In vitro blood compatibility of poly (hydroxybutyrate-co-hydroxyhexanoate) and the influence of surface modification by alkali treatment. Materials Science and Engineering C, 2010, 30, 369-375.	7.3	24
80	Microstructure, mechanical properties and bio-corrosion properties of Mgâ€“Si(â€“Ca, Zn) alloy for biomedical applicationâ˜†. Acta Biomaterialia, 2010, 6, 1756-1762.	8.3	237
81	Grain refinement of AZ91D by spinning spray of carbon dioxide gas and its effect on mechanical property. Materials Science and Technology, 2010, 26, 956-961.	1.6	4
82	Degassing of magnesium alloy by rotating impeller degasser Part 2 â€“ effect on microstructure and mechanical properties. Materials Science and Technology, 2010, 26, 1253-1258.	1.6	11
83	<i>In vivo</i> evaluation of biodegradable magnesium alloy bone implant in the first 6 months implantation. Journal of Biomedical Materials Research - Part A, 2009, 90A, 882-893.	4.0	226
84	Porous titanium and silicon-substituted hydroxyapatite biomodification prepared by a biomimetic process: Characterization and in vivo evaluation. Acta Biomaterialia, 2009, 5, 1732-1741.	8.3	61
85	Phosphating treatment and corrosion properties of Mgâ€“Mnâ€“Zn alloy for biomedical application. Journal of Materials Science: Materials in Medicine, 2009, 20, 859-867.	3.6	98
86	Surface microstructure and cell biocompatibility of silicon-substituted hydroxyapatite coating on titanium substrate prepared by a biomimetic process. Materials Science and Engineering C, 2009, 29, 298-305.	7.3	44
87	Microstructure, mechanical and corrosion properties and biocompatibility of Mgâ€“Znâ€“Mn alloys for biomedical application. Materials Science and Engineering C, 2009, 29, 987-993.	7.3	399
88	Biocorrosion behavior of magnesium alloy in different simulated fluids for biomedical application. Materials Science and Engineering C, 2009, 29, 1691-1696.	7.3	212
89	In vitro and in vivo evaluation of the surface bioactivity of a calcium phosphate coated magnesium alloy. Biomaterials, 2009, 30, 1512-1523.	11.4	454
90	Preparation and characterization of silicon-substituted hydroxyapatite coating by a biomimetic process on titanium substrate. Surface and Coatings Technology, 2009, 203, 1075-1080.	4.8	57

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91	Surface bio-modification of poly(hydroxybutyrate-co-hydroxyhexanoate) and its aging effect. Colloids and Surfaces B: Biointerfaces, 2009, 73, 302-307.	5.0	28
92	On the compressive behavior of sintered porous coppers with low-to-medium porositiesâ€"Part II: Preparation and microstructure. International Journal of Mechanical Sciences, 2008, 50, 550-558.	6.7	36
93	Preparation, microstructure and mechanical properties of porous titanium sintered by Ti fibres. Journal of Materials Science: Materials in Medicine, 2008, 19, 401-405.	3.6	49
94	InÂvitro corrosion behaviour of Mg alloys in a phosphate buffered solution for bone implant application. Journal of Materials Science: Materials in Medicine, 2008, 19, 1017-1025.	3.6	176
95	Microstructure, mechanical properties and bio-corrosion properties of Mgâ€"Znâ€"Mnâ€"Ca alloy for biomedical application. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 497, 111-118.	5.6	271
96	Microstructure, mechanical properties and corrosion properties of Mgâ€"Znâ€"Y alloys with low Zn content. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 488, 102-111.	5.6	142
97	Effect of Zn on mechanical property and corrosion property of extruded Mg-Zn-Mn alloy. Transactions of Nonferrous Metals Society of China, 2008, 18, 763-768.	4.2	126
98	Degassing of magnesium alloy by rotating impeller degasser: Part 1 â€" Mathematical modelling. Materials Science and Technology, 2008, 24, 1304-1308.	1.6	12
99	Achieving ultra-fine grains in AZ61 Mg alloy by friction stir processing. International Journal of Materials Research, 2008, 99, 1375-1378.	0.3	8
100	Microstructure and mechanical properties of AZ91D alloy prepared by a semi-solid diecasting process. International Journal of Materials Research, 2007, 98, 235-238.	0.3	2
101	In vivo corrosion behavior of Mg-Mn-Zn alloy for bone implant application. Journal of Biomedical Materials Research - Part A, 2007, 83A, 703-711.	4.0	462
102	Microstructure and mechanical behaviour of semi-solid die-casting AZ91D magnesium alloy. Materials Letters, 2007, 61, 2333-2337.	2.6	53
103	Formation by ion plating of Ti-coating on pure Mg for biomedical applications. Scripta Materialia, 2005, 53, 523-527.	5.2	125
104	On the compressive behaviour of sintered porous coppers with low to medium porositiesâ€"Part I: Experimental study. International Journal of Mechanical Sciences, 2005, 47, 744-756.	6.7	66
105	Effect of in situ TiB short fibre on oxidation behavior of Tiâ€"6Alâ€"1.2B alloy. Scripta Materialia, 2002, 46, 811-816.	5.2	42
106	Preparation and microstructure of in situ particle reinforced titanium matrix alloy. Journal of Materials Processing Technology, 2002, 125-126, 103-109.	6.3	26
107	Microstructure and hardness of as-cast in situ TiB short fibre reinforced Ti-6Al matrix composites. Journal of Materials Science, 2002, 37, 1861-1867.	3.7	4
108	Oxidation behavior of in situ TiB short fibre reinforced Ti-6Al-1.2B alloy in air. Journal of Materials Science, 2002, 37, 4063-4071.	3.7	21

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109	Temperature dependence of morphology of TiC reinforcement in in situ Ti-6Al/TiC composites. Journal of Materials Science Letters, 2001, 20, 1063-1065.	0.5	12
110	Title is missing!. Journal of Materials Science Letters, 2001, 20, 1733-1735.	0.5	2
111	A study on the kinetic process of reaction synthesis of TiC: Part I. Experimental research and theoretical model. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1999, 30, 1147-1151.	2.2	32
112	A study on the kinetic process of reaction synthesis of TiC: Part II. Theoretical analyses and numerical calculation. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1999, 30, 1153-1157.	2.2	2