Ke Yang

List of Publications by Year
in descending order

340 papers	15,619 citations	17440 63 h-index	29154 104 g-index
343 all docs	343 docs citations	343 times ranked	9013 citing authors

#	Article	IF	Citations
1	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
2	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
3	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
4	Biodegradable Materials for Bone Repairs: A Review. Journal of Materials Science and Technology, 2013, 29, 503-513.	10.7	324
5	A new antibacterial titaniumâ€“copper sintered alloy: Preparation and antibacterial property. Materials Science and Engineering C, 2013, 33, 4280-4287.	7.3	247
6	Vascularized bone grafting fixed by biodegradable magnesium screw for treating osteonecrosis of the femoral head. Biomaterials, 2016, 81, 84-92.	11.4	245
7	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
8	In vivo 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
9	Mechanical properties of magnesium alloys for medical application: A review. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 87, 68-79.	3.1	197
10	Nickel-free austenitic stainless steels for medical applications. Science and Technology of Advanced Materials, 2010, 11, 014105.	6.1	195
11	Biodegradable Mg-Cu alloy implants with antibacterial activity for the treatment of osteomyelitis: InÂvitro and inÂvivo evaluations. Biomaterials, 2016, 106, 250-263.	11.4	194
12	The effects of thermo-mechanical control process on microstructures and mechanical properties of a commercial pipeline steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 335, 14-20.	5.6	189
13	The in vitro degradation process and biocompatibility of a ZK60 magnesium alloy with a forsterite-containing micro-arc oxidation coating. Acta Biomaterialia, 2013, 9, 8631-8642.	8.3	187
14	Fluoride treatment and in vitro corrosion behavior of an AZ31B magnesium alloy. Materials Science and Engineering C, 2010, 30, 740-748.	7.3	182
15	The effect of metallic magnesium degradation products on osteoclast-induced osteolysis and attenuation of NF-ÎºB and NFATc1 signaling. Biomaterials, 2014, 35, 6299-6310.	11.4	171
16	Antibacterial effect of copper-bearing titanium alloy (Ti-Cu) against Streptococcus mutans and Porphyromonas gingivalis. Scientific Reports, 2016, 6, 29985.	3.3	165
17	In situ TEM study of the effect of M/A films at grain boundaries on crack propagation in an ultra-fine acicular ferrite pipeline steel. Acta Materialia, 2006, 54, 435-443.	7.9	158
18	Surface Modification on Biodegradable Magnesium Alloys as Orthopedic Implant Materials to Improve the Bio-adaptability: A Review. Journal of Materials Science and Technology, 2016, 32, 827-834.	10.7	151

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19	The effect of Cu addition on the electrochemical corrosion and passivation behavior of stainless steels. Electrochimica Acta, 2010, 55, 5028-5035.	5.2	150
20	Antibacterial Properties of Tiâ€“6Alâ€“4Vâ€“xCu Alloys. Journal of Materials Science and Technology, 2014, 30, 699-705.	10.7	145
21	Biodegradable Mg-Cu alloys with enhanced osteogenesis, angiogenesis, and long-lasting antibacterial effects. Scientific Reports, 2016, 6, 27374.	3.3	144
22	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
23	Toward a Molecular Understanding of the Antibacterial Mechanism of Copperâ€Bearing Titanium Alloys against Staphylococcus aureus. Advanced Healthcare Materials, 2016, 5, 557-566.	7.6	140
24	Accelerated corrosion of 2205 duplex stainless steel caused by marine aerobic Pseudomonas aeruginosa biofilm. Bioelectrochemistry, 2017, 113, 1-8.	4.6	138
25	In vitro and in vivo studies of anti-bacterial copper-bearing titanium alloy for dental application. Dental Materials, 2018, 34, 1112-1126.	3.5	133
26	Study on antibacterial mechanism of copper-bearing austenitic antibacterial stainless steel by atomic force microscopy. Journal of Materials Science: Materials in Medicine, 2008, 19, 3057-3062.	3.6	127
27	Precipitate evolution and strengthening behavior during aging process in a 2.5 GPa grade maraging steel. Acta Materialia, 2019, 179, 296-307.	7.9	120
28	Study of high strength pipeline steels with different microstructures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 502, 38-44.	5.6	116
29	Ion channel functional protein kinase TRPM7 regulates Mg ions to promote the osteoinduction of human osteoblast via PI3K pathway: In vitro simulation of the bone-repairing effect of Mg-based alloy implant. Acta Biomaterialia, 2017, 63, 369-382.	8.3	115
30	Effect of Heat Treatment on Cu Distribution, Antibacterial Performance and Cytotoxicity of Tiâ€“6Alâ€“4Vâ€“5Cu Alloy. Journal of Materials Science and Technology, 2015, 31, 723-732.	10.7	112
31	Effect of surface coating on antibacterial behavior of magnesium based metals. Materials Letters, 2011, 65, 3509-3511.	2.6	111
32	Investigation of microbiologically influenced corrosion of high nitrogen nickel-free stainless steel by Pseudomonas aeruginosa. Corrosion Science, 2016, 111, 811-821.	6.6	110
33	Acicular ferritic microstructure of a low-carbon Mnâ€“Moâ€“Nb microalloyed pipeline steel. Materials Characterization, 2005, 54, 305-314.	4.4	107
34	Antibacterial effect of 317L stainless steel contained copper in prevention of implant-related infection in vitro and in vivo. Journal of Materials Science: Materials in Medicine, 2011, 22, 2525-2535.	3.6	107
35	Study of copper precipitation behavior in a Cu-bearing austenitic antibacterial stainless steel. Materials & Design, 2011, 32, 2374-2379.	5.1	107
36	Effect of copper addition on mechanical properties, corrosion resistance and antibacterial property of 316L stainless steel. Materials Science and Engineering C, 2017, 71, 1079-1085.	7.3	107

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37	Preliminary study of anti-infective function of a copper-bearing stainless steel. Materials Science and Engineering C, 2012, 32, 1204-1209.	7.3	105
38	Corrosion of antibacterial Cu-bearing 316L stainless steels in the presence of sulfate reducing bacteria. Corrosion Science, 2018, 132, 46-55.	6.6	102
39	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
40	Microstructural stability of 9â€“12%Cr ferrite/martensite heat-resistant steels. Frontiers of Materials Science, 2013, 7, 1-27.	2.2	98
41	Antibacterial Properties of Magnesium In Vitro and in an In Vivo Model of Implant-Associated Methicillin-Resistant Staphylococcus aureus Infection. Antimicrobial Agents and Chemotherapy, 2014, 58, 7586-7591.	3.2	95
42	Biofunctional magnesium coated Ti6Al4V scaffold enhances osteogenesis and angiogenesis in vitro and in vivo for orthopedic application. Bioactive Materials, 2020, 5, 680-693.	15.6	91
43	Comparison on strength and toughness behaviors of microalloyed pipeline steels with acicular ferrite and ultrafine ferrite. Materials Letters, 2003, 57, 1496-1500.	2.6	90
44	Enhanced resistance of 2205 Cu-bearing duplex stainless steel towards microbiologically influenced corrosion by marine aerobic Pseudomonas aeruginosa biofilms. Journal of Materials Science and Technology, 2018, 34, 1325-1336.	10.7	90
45	Biological applications of copper-containing materials. Bioactive Materials, 2021, 6, 916-927.	15.6	90
46	Laboratory investigation of the microbiologically influenced corrosion (MIC) resistance of a novel Cu-bearing 2205 duplex stainless steel in the presence of an aerobic marinePseudomonas aeruginosabiofilm. Biofouling, 2015, 31, 481-492.	2.2	89
47	Optimization of mechanical property, antibacterial property and corrosion resistance of Ti-Cu alloy for dental implant. Journal of Materials Science and Technology, 2019, 35, 2336-2344.	10.7	87
48	Copper precipitation behavior and mechanical properties of Cu-bearing 316L austenitic stainless steel: A comprehensive cross-correlation study. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 675, 243-252.	5.6	85
49	Loss of mechanical properties in vivo and boneâ€“implant interface strength of AZ31B magnesium alloy screws with Si-containing coating. Acta Biomaterialia, 2014, 10, 2333-2340.	8.3	84
50	Effect of preparation parameters on the properties of hydroxyapatite containing micro-arc oxidation coating on biodegradable ZK60 magnesium alloy. Ceramics International, 2014, 40, 10043-10051.	4.8	84
51	Microbiological influenced corrosion resistance characteristics of a 304L-Cu stainless steel against Escherichia coli. Materials Science and Engineering C, 2015, 48, 228-234.	7.3	81
52	Fluoride Conversion Coating on Biodegradable AZ31B Magnesium Alloy. Journal of Materials Science and Technology, 2014, 30, 666-674.	10.7	80
53	Relation among rolling parameters, microstructures and mechanical properties in an acicular ferrite pipeline steel. Materials & Design, 2009, 30, 3436-3443.	5.1	78
54	In vitro and in vivo evaluation of MgF2 coated AZ31 magnesium alloy porous scaffolds for bone regeneration. Colloids and Surfaces B: Biointerfaces, 2017, 149, 330-340.	5.0	77

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55	Effect of grain refinement and crystallographic texture produced by friction stir processing on the biodegradation behavior of a Mg-Nd-Zn alloy. Journal of Materials Science and Technology, 2019, 35, 777-783.	10.7	77
56	Finite element analyses for design evaluation of biodegradable magnesium alloy stents in arterial vessels. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1733-1740.	3.5	76
57	Effect of minor content of Gd on the mechanical and degradable properties of as-cast Mg-2Zn-xGd-0.5Zr alloys. Journal of Materials Science and Technology, 2019, 35, 503-511.	10.7	71
58	Antibacterial ability of a novel Cu-bearing 2205 duplex stainless steel against Pseudomonas aeruginosa biofilm in artificial seawater. International Biodeterioration and Biodegradation, 2016, 110, 199-205.	3.9	70
59	Study of the processing map and hot deformation behavior of a Cu-bearing 317LN austenitic stainless steel. Materials and Design, 2015, 87, 303-312.	7.0	69
60	In vitro study of role of trace amount of Cu release from Cu-bearing stainless steel targeting for reduction of in-stent restenosis. Journal of Materials Science: Materials in Medicine, 2012, 23, 1235-1245.	3.6	68
61	Microbiologically influenced corrosion of titanium caused by aerobic marine bacterium Pseudomonas aeruginosa. Journal of Materials Science and Technology, 2019, 35, 216-222.	10.7	68
62	Effect of heat treatment on mechanical and biodegradable properties of an extruded ZK60 alloy. Bioactive Materials, 2017, 2, 19-26.	15.6	67
63	Oxidation behavior of ferritic/martensitic steels in stagnant liquid LBE saturated by oxygen at 600 Â°C. Journal of Nuclear Materials, 2015, 457, 135-141.	2.7	65
64	Osteogenic ability of Cuâ€bearing stainless steel. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2015, 103, 1433-1444.	3.4	65
65	Investigation on the H2S-resistant behaviors of acicular ferrite and ultrafine ferrite. Materials Letters, 2002, 57, 141-145.	2.6	64
66	The antibacterial properties and biocompatibility of a Tiâ€“Cu sintered alloy for biomedical application. Biomedical Materials (Bristol), 2014, 9, 025013.	3.3	64
67	Preliminary research on a novel bioactive silicon doped calcium phosphate coating on AZ31 magnesium alloy via electrodeposition. Materials Science and Engineering C, 2014, 36, 65-76.	7.3	64
68	The fluoride coated AZ31B magnesium alloy improves corrosion resistance and stimulates bone formation in rabbit model. Materials Science and Engineering C, 2016, 63, 506-511.	7.3	64
69	Effects of aging time on intergranular and pitting corrosion behavior of Cu-bearing 304L stainless steel in comparison with 304L stainless steel. Corrosion Science, 2016, 113, 46-56.	6.6	64
70	Fabrication and Evaluation of a Bioactive Srâ€“Caâ€“P Contained Micro-Arc Oxidation Coating on Magnesium Strontium Alloy for Bone Repair Application. Journal of Materials Science and Technology, 2016, 32, 233-244.	10.7	64
71	Improvement of biodegradable and antibacterial properties by solution treatment and micro-arc oxidation (MAO) of a magnesium alloy with a trace of copper. Corrosion Science, 2019, 156, 125-138.	6.6	64
72	Antibacterial activity against Porphyromonas gingivalis and biological characteristics of antibacterial stainless steel. Colloids and Surfaces B: Biointerfaces, 2013, 105, 51-57.	5.0	63

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73	In vitro degradation and antibacterial property of a copper-containing micro-arc oxidation coating on Mg-2Zn-1Gd-0.5Zr alloy. Colloids and Surfaces B: Biointerfaces, 2019, 179, 77-86.	5.0	63
74	Research on super-hydrophobic surface of biodegradable magnesium alloys used for vascular stents. Materials Science and Engineering C, 2013, 33, 2885-2890.	7.3	62
75	Study on improved tribological properties by alloying copper to CP-Ti and Tiâ€“6Alâ€“4V alloy. Materials Science and Engineering C, 2015, 57, 123-132.	7.3	62
76	Effect of surface passivation on corrosion resistance and antibacterial properties of Cu-bearing 316L stainless steel. Applied Surface Science, 2016, 386, 371-380.	6.1	62
77	Strengthening and toughening of a 2800-MPa grade maraging steel. Materials Letters, 2002, 56, 763-769.	2.6	61
78	Evolution of microstructure and changes of mechanical properties of CLAM steel after long-term aging. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 586, 253-258.	5.6	61
79	Novel Cu-bearing high-strength pipeline steels with excellent resistance to hydrogen-induced cracking. Materials and Design, 2016, 92, 300-305.	7.0	61
80	Contact Killing of Cu-Bearing Stainless Steel Based on Charge Transfer Caused by the Microdomain Potential Difference. ACS Applied Materials & Interfaces, 2020, 12, 361-372.	8.0	61
81	Experimental data confirm numerical modeling of the degradation process of magnesium alloys stents. Acta Biomaterialia, 2013, 9, 8730-8739.	8.3	60
82	Corrosion and biological performance of biodegradable magnesium alloys mediated by low copper addition and processing. Materials Science and Engineering C, 2018, 93, 565-581.	7.3	60
83	Salvia officinalis extract mitigates the microbiologically influenced corrosion of 304L stainless steel by Pseudomonas aeruginosa biofilm. Bioelectrochemistry, 2019, 128, 193-203.	4.6	60
84	Mitigation of microbiologically influenced corrosion of 304L stainless steel in the presence of Pseudomonas aeruginosa by Cistus ladanifer leaves extract. International Biodeterioration and Biodegradation, 2018, 133, 159-169.	3.9	58
85	In vitro degradation and biocompatibility of a strontium-containing micro-arc oxidation coating on the biodegradable ZK60 magnesium alloy. Applied Surface Science, 2014, 288, 718-726.	6.1	57
86	Strengthening and improvement of sulfide stress cracking resistance in acicular ferrite pipeline steels by nano-sized carbonitrides. Scripta Materialia, 2005, 52, 881-886.	5.2	56
87	Bio-functional Design for Metal Implants, a New Concept for Development of Metallic Biomaterials. Journal of Materials Science and Technology, 2013, 29, 1005-1010.	10.7	55
88	In vivo degradation and tissue compatibility of ZK60 magnesium alloy with micro-arc oxidation coating in a transcortical model. Materials Science and Engineering C, 2013, 33, 3881-3888.	7.3	55
89	Antibacterial Performance of a Cu-bearing Stainless Steel against Microorganisms in Tap Water. Journal of Materials Science and Technology, 2015, 31, 243-251.	10.7	54
90	Antibacterial effect of a copper-containing titanium alloy against implant-associated infection induced by methicillin-resistant Staphylococcus aureus. Acta Biomaterialia, 2021, 119, 472-484.	8.3	54

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91	Fabrication and evaluation of bioresorbable PLLA/magnesium and PLLA/magnesium fluoride hybrid composites for orthopedic implants. Composites Science and Technology, 2014, 98, 36-43.	7.8	52
92	Tailoring the degradation and biological response of a magnesiumâ€“strontium alloy for potential bone substitute application. Materials Science and Engineering C, 2016, 58, 799-811.	7.3	52
93	Antimicrobial Cu-bearing 2205 duplex stainless steel against MIC by nitrate reducing Pseudomonas aeruginosa biofilm. International Biodeterioration and Biodegradation, 2018, 132, 132-138.	3.9	52
94	Influence of Cold Work on Pitting Corrosion Behavior of a High Nitrogen Stainless Steel. Journal of the Electrochemical Society, 2008, 155, C455.	2.9	51
95	Cytotoxic Effect on Osteosarcoma MG-63 Cells by Degradation of Magnesium. Journal of Materials Science and Technology, 2014, 30, 888-893.	10.7	51
96	A new 1.9GPa maraging stainless steel strengthened by multiple precipitating species. Materials and Design, 2015, 82, 56-63.	7.0	51
97	Bio-Functional Cu Containing Biomaterials: a New Way to Enhance Bio-Adaption of Biomaterials. Journal of Materials Science and Technology, 2016, 32, 835-839.	10.7	51
98	Inhibition of Staphylococcus aureus biofilm by a copper-bearing 317L-Cu stainless steel and its corrosion resistance. Materials Science and Engineering C, 2016, 69, 744-750.	7.3	51
99	Cu Ions Dissolution from Cu-bearing Antibacterial Stainless Steel. Journal of Materials Science and Technology, 2010, 26, 941-944.	10.7	50
100	Effect of Cu Addition to 2205 Duplex Stainless Steel on the Resistance against Pitting Corrosion by the Pseudomonas aeruginosa Biofilm. Journal of Materials Science and Technology, 2017, 33, 723-727.	10.7	50
101	Effect of annealing temperature on mechanical and antibacterial properties of Cu-bearing titanium alloy and its preliminary study of antibacterial mechanism. Materials Science and Engineering C, 2018, 93, 495-504.	7.3	50
102	Silicon enhances high temperature oxidation resistance of SIMP steel at 700â€¯Â°C. Corrosion Science, 2020, 167, 108519.	6.6	49
103	Dynamic behaviors of a Caâ€“P coated AZ31B magnesium alloy during in vitro and in vivo degradations. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1718-1726.	3.5	48
104	Role of microstructure on sulfide stress cracking of oil and gas pipeline steels. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2003, 34, 1089-1096.	2.2	47
105	In vitro and in vivo evaluations on osteogenesis and biodegradability of a Î²â€tricalcium phosphate coated magnesium alloy. Journal of Biomedical Materials Research - Part A, 2012, 100A, 293-304.	4.0	47
106	Study on antibacterial performance of Cu-bearing cobalt-based alloy. Materials Letters, 2014, 129, 88-90.	2.6	47
107	Preclinical investigation of an innovative magnesium-based bone graft substitute forÂpotential orthopaedic applications. Journal of Orthopaedic Translation, 2014, 2, 139-148.	3.9	47
108	Study on fatigue property of a new 2.8GPa grade maraging steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 3057-3063.	5.6	46

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109	Antibacterial TiCu/TiCuN Multilayer Films with Good Corrosion Resistance Deposited by Axial Magnetic Field-Enhanced Arc Ion Plating. ACS Applied Materials & Interfaces, 2019, 11, 125-136.	8.0	46
110	Effects of combined chemical design (Cu addition) and topographical modification (SLA) of Ti-Cu/SLA for promoting osteogenic, angiogenic and antibacterial activities. Journal of Materials Science and Technology, 2020, 47, 202-215.	10.7	46
111	Microbial corrosion resistance of a novel Cu-bearing pipeline steel. Journal of Materials Science and Technology, 2018, 34, 2480-2491.	10.7	45
112	In vitro study of platelet adhesion on medical nickel-free stainless steel surface. Materials Letters, 2005, 59, 1785-1789.	2.6	44
113	Influence of albumin and inorganic ions on electrochemical corrosion behavior of plasma electrolytic oxidation coated magnesium for surgical implants. Applied Surface Science, 2013, 282, 186-194.	6.1	44
114	Cytocompatibility and Hemolysis of AZ31B Magnesium Alloy with Si-containing Coating. Journal of Materials Science and Technology, 2015, 31, 845-851.	10.7	44
115	In vitro study on an antibacterial Tiâ€“5Cu alloy for medical application. Journal of Materials Science: Materials in Medicine, 2016, 27, 91.	3.6	44
116	Novel Bio-functional Magnesium Coating on Porous Ti6Al4V Orthopaedic Implants: In vitro and In vivo Study. Scientific Reports, 2017, 7, 40755.	3.3	44
117	Biofunctional Mg coating on PEEK for improving bioactivity. Bioactive Materials, 2018, 3, 139-143.	15.6	44
118	Microstructure Evolution of a 10Cr Heat-Resistant Steel during High Temperature Creep. Journal of Materials Science and Technology, 2011, 27, 344-351.	10.7	43
119	A self-healing stainless steel: Role of nitrogen in eliminating detrimental effect of cold working on pitting corrosion resistance. Corrosion Science, 2018, 145, 55-66.	6.6	43
120	Preparation and characterization of Ca-P coating on AZ31 magnesium alloy. Transactions of Nonferrous Metals Society of China, 2010, 20, s648-s654.	4.2	41
121	CoCrWCu alloy with antibacterial activity fabricated by selective laser melting: Densification, mechanical properties and microstructural analysis. Powder Technology, 2018, 325, 289-300.	4.2	41
122	An investigation of the antibacterial ability and cytotoxicity of a novel cu-bearing 317L stainless steel. Scientific Reports, 2016, 6, 29244.	3.3	40
123	Biocompatibility and neurotoxicity of magnesium alloys potentially used for neural repairs. Materials Science and Engineering C, 2017, 78, 1155-1163.	7.3	40
124	Eliminating detrimental effect of cold working on pitting corrosion resistance in high nitrogen austenitic stainless steels. Corrosion Science, 2017, 123, 351-355.	6.6	40
125	Optimization of annealing treatment and comprehensive properties of Cu-containing Ti6Al4V-xCu alloys. Journal of Materials Science and Technology, 2019, 35, 2121-2131.	10.7	40
126	Antibacterial durability and biocompatibility of antibacterial-passivated 316L stainless steel in simulated physiological environment. Materials Science and Engineering C, 2019, 100, 396-410.	7.3	40

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127	Effect of nitrogen on blood compatibility of nickel-free high nitrogen stainless steel for biomaterial. Materials Science and Engineering C, 2010, 30, 1183-1189.	7.3	39
128	Differential scanning calorimetry analysis on Cu precipitation in a high Cu austenitic stainless steel. Materials & Design, 2011, 32, 3980-3985.	5.1	39
129	Antimicrobial Cu-bearing stainless steel scaffolds. Materials Science and Engineering C, 2016, 68, 519-522.	7.3	39
130	Effect of Microstructure on Hydrogen Induced Cracking Behavior of a High Deformability Pipeline Steel. Journal of Iron and Steel Research International, 2015, 22, 937-942.	2.8	38
131	Hot deformation characteristics of a nitride strengthened martensitic heat resistant steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 590, 199-208.	5.6	37
132	Rough surface of copper-bearing titanium alloy with multifunctions of osteogenic ability and antibacterial activity. Journal of Materials Science and Technology, 2020, 48, 130-139.	10.7	37
133	Novel biocompatible magnesium alloys design with nutrient alloying elements Si, Ca and Sr: Structure and properties characterization. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2016, 214, 26-36.	3.5	36
134	Study on microstructure and properties of extruded Mgâ€“2Ndâ€“0.2Zn alloy as potential biodegradable implant material. Materials Science and Engineering C, 2015, 49, 422-429.	7.3	35
135	In vitro study on cytocompatibility and osteogenesis ability of Tiâ€“Cu alloy. Journal of Materials Science: Materials in Medicine, 2019, 30, 75.	3.6	35
136	Antibacterial Behavior of a Cu-bearing Type 200 Stainless Steel. Journal of Materials Science and Technology, 2012, 28, 1067-1070.	10.7	34
137	Bioactive Caâ€“P coating with self-sealing structure on pure magnesium. Journal of Materials Science: Materials in Medicine, 2013, 24, 889-901.	3.6	34
138	Finite element analyses for optimization design of biodegradable magnesium alloy stent. Materials Science and Engineering C, 2014, 42, 705-714.	7.3	34
139	Molecular and cellular mechanisms for zoledronic acid-loaded magnesium-strontium alloys to inhibit giant cell tumors of bone. Acta Biomaterialia, 2018, 77, 365-379.	8.3	34
140	Preliminary Study on Cytotoxic Effect of Biodegradation of Magnesium on Cancer Cells. Journal of Materials Science and Technology, 2012, 28, 769-772.	10.7	33
141	Antibacterial activity of copperâ€bearing 316L stainless steel for the prevention of implantâ€related infection. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 484-495.	3.4	33
142	Improved corrosion resistance and biofilm inhibition ability of copper-bearing 304 stainless steel against oral microaerobic Streptococcus mutans. Journal of Materials Science and Technology, 2021, 66, 112-120.	10.7	33
143	Effect of nitrogen on biocorrosion behavior of high nitrogen nickel-free stainless steel in different simulated body fluids. Materials Science and Engineering C, 2012, 32, 510-516.	7.3	32
144	Short-term effect of magnesium implantation on the osteomyelitis modeled animals induced by Staphylococcus aureus. Journal of Materials Science: Materials in Medicine, 2013, 24, 2405-2416.	3.6	32

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145	The effects of pulse electrodeposition parameters on morphology and formation of dual-layer Si-doped calcium phosphate coating on AZ31 alloy. Ceramics International, 2015, 41, 787-796.	4.8	32
146	Effect of copper content on the corrosion behaviors and antibacterial properties of binary Mgâ€“Cu alloys. Materials Technology, 2018, 33, 145-152.	3.0	32
147	Influence of hybrid extrusion and solution treatment on the microstructure and degradation behavior of Mg-0.1Cu alloy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2018, 229, 105-117.	3.5	32
148	Regulation of osteogenesis and osteoclastogenesis by zoledronic acid loaded on biodegradable magnesium-strontium alloy. Scientific Reports, 2019, 9, 933.	3.3	32
149	Characterization of micro-arc oxidation coating post-treated by hydrofluoric acid on biodegradable ZK60 magnesium alloy. Surface and Coatings Technology, 2013, 232, 899-905.	4.8	31
150	Analysis of deformation behavior and workability of advanced 9Crâ€“Nbâ€“V ferritic heat resistant steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 604, 207-214.	5.6	31
151	Study on biodegradation of the second phase Mg17Al12 in Mgâ€“Alâ€“Zn Alloys: In vitro experiment and thermodynamic calculation. Materials Science and Engineering C, 2014, 35, 1-7.	7.3	31
152	A novel coping metal material CoCrCu alloy fabricated by selective laser melting with antimicrobial and antibiofilm properties. Materials Science and Engineering C, 2016, 67, 461-467.	7.3	31
153	Biofilm inhibition and corrosion resistance of 2205-Cu duplex stainless steel against acid producing bacterium Acetobacter aceti. Journal of Materials Science and Technology, 2019, 35, 2494-2502.	10.7	31
154	High nitrogen nickel-free austenitic stainless steel: A promising coronary stent material. Science China Technological Sciences, 2012, 55, 329-340.	4.0	30
155	Influence of thermal aging on microstructure and mechanical properties of CLAM steel. Journal of Nuclear Materials, 2013, 443, 479-483.	2.7	30
156	Dissolution and repair of passive film on Cu-bearing 304L stainless steels immersed in H2SO4 solution. Journal of Materials Science and Technology, 2018, 34, 2149-2159.	10.7	30
157	Preliminary study of microstructure, mechanical properties and corrosion resistance of antibacterial Ti-15Zr-xCu alloy for dental application. Journal of Materials Science and Technology, 2020, 50, 31-43.	10.7	30
158	The effect of different coatings on bone response and degradation behavior of porous magnesium-strontium devices in segmental defect regeneration. Bioactive Materials, 2021, 6, 1765-1776.	15.6	30
159	Molecular mechanisms of osteogenesis and antibacterial activity of Cu-bearing Ti alloy in a bone defect model with infection in vivo. Journal of Orthopaedic Translation, 2021, 27, 77-89.	3.9	30
160	Study on Laves phase in an advanced heat-resistant steel. Frontiers of Materials Science in China, 2009, 3, 434-441.	0.5	29
161	Anti-biofilm formation of a novel stainless steel against Staphylococcus aureus. Materials Science and Engineering C, 2015, 51, 356-361.	7.3	29
162	Antibacterial Performance of Cu-Bearing Stainless Steel against Staphylococcus aureus and Pseudomonas aeruginosa in Whole Milk. Journal of Materials Science and Technology, 2016, 32, 445-451.	10.7	29

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163	Anti-infection mechanism of a novel dental implant made of titanium-copper (TiCu) alloy and its mechanism associated with oral microbiology. Bioactive Materials, 2022, 8, 381-395.	15.6	29
164	Effect of Cu on microstructure, mechanical properties, corrosion resistance and cytotoxicity of CoCrW alloy fabricated by selective laser melting. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 81, 130-141.	3.1	28
165	Ce addition enhances the microbially induced corrosion resistance of Cu-bearing 2205 duplex stainless steel in presence of sulfate reducing bacteria. Corrosion Science, 2021, 179, 109141.	6.6	28
166	Relationship between Laves phase and the impact brittleness of P92 steel reevaluated. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 639, 252-258.	5.6	27
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