Yf Zheng

List of Publications by Year in descending order

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Version: 2024-02-01

839 papers	57,952 citations	1040 113 h-index	2675 193 g-index
870 all docs	870 docs citations	870 times ranked	33850 citing authors

#	Article	IF	Citations
1	Multiscale vessel enhancement filtering. Lecture Notes in Computer Science, 1998, , 130-137.	1.0	2,012
2	Biodegradable metals. Materials Science and Engineering Reports, 2014, 77, 1-34.	14.8	1,816
3	The development of binary Mgâ€“Ca alloys for use as biodegradable materials within bone. Biomaterials, 2008, 29, 1329-1344.	5.7	1,370
4	In vitro corrosion and biocompatibility of binary magnesium alloys. Biomaterials, 2009, 30, 484-498.	5.7	1,151
5	Biomimetic porous scaffolds for bone tissue engineering. Materials Science and Engineering Reports, 2014, 80, 1-36.	14.8	854
6	Implant-derived magnesium induces local neuronal production of CGRP to improve bone-fracture healing in rats. Nature Medicine, 2016, 22, 1160-1169.	15.2	666
7	Photo-Inspired Antibacterial Activity and Wound Healing Acceleration by Hydrogel Embedded with Ag/Ag@AgCl/ZnO Nanostructures. ACS Nano, 2017, 11, 9010-9021.	7.3	591
8	Novel Magnesium Alloys Developed for Biomedical Application: A Review. Journal of Materials Science and Technology, 2013, 29, 489-502.	5.6	586
9	Additive manufacturing of ultrafine-grained high-strength titanium alloys. Nature, 2019, 576, 91-95.	13.7	575
10	A review on magnesium alloys as biodegradable materials. Frontiers of Materials Science in China, 2010, 4, 111-115.	0.5	478
11	In vitro and in vivo studies on a Mgâ€“Sr binary alloy system developed as a new kind of biodegradable metal. Acta Biomaterialia, 2012, 8, 2360-2374.	4.1	384
12	Current Challenges and Concepts of the Thermomechanical Treatment of Nickel-Titanium Instruments. Journal of Endodontics, 2013, 39, 163-172.	1.4	380
13	Corrosion of, and cellular responses to Mgâ€“Znâ€“Ca bulk metallic glasses. Biomaterials, 2010, 31, 1093-1103.	5.7	369
14	Rapid Biofilm Eradication on Bone Implants Using Red Phosphorus and Nearâ€Infrared Light. Advanced Materials, 2018, 30, e1801808.	11.1	364
15	Corrosion resistance and surface biocompatibility of a microarc oxidation coating on a Mgâ€“Ca alloy. Acta Biomaterialia, 2011, 7, 1880-1889.	4.1	345
16	Recommendation for modifying current cytotoxicity testing standards for biodegradable magnesium-based materials. Acta Biomaterialia, 2015, 21, 237-249.	4.1	338
17	Advances in functionalized polymer coatings on biodegradable magnesium alloys â€“ A review. Acta Biomaterialia, 2018, 79, 23-36.	4.1	338
18	Electrospinning of PLGA/gelatin randomly-oriented and aligned nanofibers as potential scaffold in tissue engineering. Materials Science and Engineering C, 2010, 30, 1204-1210.	3.8	332

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19	Progress of biodegradable metals. Progress in Natural Science: Materials International, 2014, 24, 414-422.	1.8	317
20	Recent advances in bulk metallic glasses for biomedical applications. Acta Biomaterialia, 2016, 36, 1-20.	4.1	314
21	Design of magnesium alloys with controllable degradation for biomedical implants: From bulk to surface. Acta Biomaterialia, 2016, 45, 2-30.	4.1	306
22	Zinc-doped Prussian blue enhances photothermal clearance of Staphylococcus aureus and promotes tissue repair in infected wounds. Nature Communications, 2019, 10, 4490.	5.8	306
23	Repeatable Photodynamic Therapy with Triggered Signaling Pathways of Fibroblast Cell Proliferation and Differentiation To Promote Bacteria-Accompanied Wound Healing. ACS Nano, 2018, 12, 1747-1759.	7.3	303
24	Effects of alloying elements (Mn, Co, Al, W, Sn, B, C and S) on biodegradability and in vitro biocompatibility of pure iron. Acta Biomaterialia, 2011, 7, 1407-1420.	4.1	299
25	Physical Properties of 5 Root Canal Sealers. Journal of Endodontics, 2013, 39, 1281-1286.	1.4	298
26	Alloying design of biodegradable zinc as promising bone implants for load-bearing applications. Nature Communications, 2020, 11, 401.	5.8	290
27	Corrosion and characterisation of dual phase Mgâ€“Liâ€“Ca alloy in Hankâ€™s solution: The influence of microstructural features. Corrosion Science, 2014, 79, 69-82.	3.0	289
28	Corrosion fatigue behaviors of two biomedical Mg alloys â€“ AZ91D and WE43 â€“ In simulated body fluid. Acta Biomaterialia, 2010, 6, 4605-4613.	4.1	285
29	Characterization and degradation behavior of AZ31 alloy surface modified by bone-like hydroxyapatite for implant applications. Applied Surface Science, 2009, 255, 6433-6438.	3.1	283
30	Interfacial engineering of Bi2S3/Ti3C2Tx MXene based on work function for rapid photo-excited bacteria-killing. Nature Communications, 2021, 12, 1224.	5.8	283
31	Bioinspired anchoring AgNPs onto micro-nanoporous TiO2 orthopedic coatings: Trap-killing of bacteria, surface-regulated osteoblast functions and host responses. Biomaterials, 2016, 75, 203-222.	5.7	282
32	Development of biodegradable Zn-1X binary alloys with nutrient alloying elements Mg, Ca and Sr. Scientific Reports, 2015, 5, 10719.	1.6	278
33	Advances in coatings on biodegradable magnesium alloys. Journal of Magnesium and Alloys, 2020, 8, 42-65.	5.5	274
34	Graphene oxide/hydroxyapatite composite coatings fabricated by electrophoretic nanotechnology for biological applications. Carbon, 2014, 67, 185-197.	5.4	267
35	The recent progress on metalâ€“organic frameworks for phototherapy. Chemical Society Reviews, 2021, 50, 5086-5125.	18.7	262
36	Evolution of the degradation mechanism of pure zinc stent in the one-year study of rabbit abdominal aorta model. Biomaterials, 2017, 145, 92-105.	5.7	257

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37	In Vitro Corrosion and Cytocompatibility of a Microarc Oxidation Coating and Poly(<scp>l</scp>-lactic acid) Composite Coating on Mgâ€“1Liâ€“1Ca Alloy for Orthopedic Implants. ACS Applied Materials & Interfaces, 2016, 8, 10014-10028.	4.0	256
38	Enhanced photocatalytic activity and photothermal effects of cu-doped metal-organic frameworks for rapid treatment of bacteria-infected wounds. Applied Catalysis B: Environmental, 2020, 261, 118248.	10.8	255
39	Rapid Sterilization and Accelerated Wound Healing Using Zn²⁺ and Graphene Oxide Modified gâ€C₃N₄ under Dual Light Irradiation. Advanced Functional Materials, 2018, 28, 1800299.	7.8	246
40	Zinc-Based Biomaterials for Regeneration and Therapy. Trends in Biotechnology, 2019, 37, 428-441.	4.9	243
41	Balancing Bacteriaâ€“Osteoblast Competition through Selective Physical Puncture and Biofunctionalization of ZnO/Polydopamine/Arginine-Glycine-Aspartic Acid-Cysteine Nanorods. ACS Nano, 2017, 11, 11250-11263.	7.3	230
42	Tuning the Bandgap of Photo-Sensitive Polydopamine/Ag₃PO₄/Graphene Oxide Coating for Rapid, Noninvasive Disinfection of Implants. ACS Central Science, 2018, 4, 724-738.	5.3	227
43	Design and characterizations of novel biodegradable ternary Zn-based alloys with IIA nutrient alloying elements Mg, Ca and Sr. Materials and Design, 2015, 83, 95-102.	3.3	226
44	Fundamental Theory of Biodegradable Metalsâ€”Definition, Criteria, and Design. Advanced Functional Materials, 2019, 29, 1805402.	7.8	226
45	Synergistic Bacteria Killing through Photodynamic and Physical Actions of Graphene Oxide/Ag/Collagen Coating. ACS Applied Materials & Interfaces, 2017, 9, 26417-26428.	4.0	223
46	In situ synthesis and biocompatibility of nano hydroxyapatite on pristine and chitosan functionalized graphene oxide. Journal of Materials Chemistry B, 2013, 1, 475-484.	2.9	214
47	Micro-alloying with Mn in Znâ€“Mg alloy for future biodegradable metals application. Materials and Design, 2016, 94, 95-104.	3.3	214
48	Highly Effective and Noninvasive Nearâ€Infrared Eradication of a Staphylococcus aureus Biofilm on Implants by a Photoresponsive Coating within 20 Min. Advanced Science, 2019, 6, 1900599.	5.6	212
49	Functionalized TiO₂ Based Nanomaterials for Biomedical Applications. Advanced Functional Materials, 2014, 24, 5464-5481.	7.8	208
50	A study on alkaline heat treated Mgâ€“Ca alloy for the control of the biocorrosion rate. Acta Biomaterialia, 2009, 5, 2790-2799.	4.1	205
51	Laser Ablation Synthesis and Optical Characterization of Silicon Carbide Nanowires. Journal of the American Ceramic Society, 2000, 83, 3228-3230.	1.9	203
52	Fabrication and characterization of three-dimensional nanofiber membrance of PCLâ€“MWCNTs by electrospinning. Materials Science and Engineering C, 2010, 30, 1014-1021.	3.8	198
53	In vitro and in vivo studies on zinc-hydroxyapatite composites as novel biodegradable metal matrix composite for orthopedic applications. Acta Biomaterialia, 2018, 71, 200-214.	4.1	197
54	Synthesis of Large Areas of Highly Oriented, Very Long Silicon Nanowires. Advanced Materials, 2000, 12, 1343-1345.	11.1	194

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55	Enhanced antimicrobial properties, cytocompatibility, and corrosion resistance of plasma-modified biodegradable magnesium alloys. Acta Biomaterialia, 2014, 10, 544-556.	4.1	194
56	Preparation and characterization of electrospun PLGA/gelatin nanofibers as a potential drug delivery system. Colloids and Surfaces B: Biointerfaces, 2011, 84, 97-102.	2.5	191
57	InÂvitro and inÂvivo studies on the degradation of high-purity Mg (99.99wt.%) screw with femoral intracondylar fractured rabbit model. Biomaterials, 2015, 64, 57-69.	5.7	190
58	Effect of the addition of low rare earth elements (lanthanum, neodymium, cerium) on the biodegradation and biocompatibility of magnesium. Acta Biomaterialia, 2015, 11, 554-562.	4.1	184
59	Rapid Photo-Sonotherapy for Clinical Treatment of Bacterial Infected Bone Implants by Creating Oxygen Deficiency Using Sulfur Doping. ACS Nano, 2020, 14, 2077-2089.	7.3	182
60	Controlled-temperature photothermal and oxidative bacteria killing and acceleration of wound healing by polydopamine-assisted Au-hydroxyapatite nanorods. Acta Biomaterialia, 2018, 77, 352-364.	4.1	180
61	Rapid and Superior Bacteria Killing of Carbon Quantum Dots/ZnO Decorated Injectable Folic Acidâ€Conjugated PDA Hydrogel through Dualâ€Light Triggered ROS and Membrane Permeability. Small, 2019, 15, e1900322.	5.2	180
62	Giant magnetic-field-induced strains in Heusler alloy NiMnGa with modified composition. Applied Physics Letters, 1999, 75, 2990-2992.	1.5	176
63	Additive manufacturing of biodegradable metals: Current research status and future perspectives. Acta Biomaterialia, 2019, 98, 3-22.	4.1	176
64	Regulation of macrophage polarization through surface topography design to facilitate implant-to-bone osteointegration. Science Advances, 2021, 7, .	4.7	176
65	Comparative inÂvitro Study on Pure Metals (Fe, Mn, Mg, Zn and W) asÂBiodegradable Metals. Journal of Materials Science and Technology, 2013, 29, 619-627.	5.6	175
66	Biofunctionalization of metallic implants by calcium phosphate coatings. Bioactive Materials, 2019, 4, 196-206.	8.6	173
67	Tailored Surface Treatment of 3D Printed Porous Ti6Al4V by Microarc Oxidation for Enhanced Osseointegration via Optimized Bone In-Growth Patterns and Interlocked Bone/Implant Interface. ACS Applied Materials & Interfaces, 2016, 8, 17964-17975.	4.0	172
68	An overview of graphene-based hydroxyapatite composites for orthopedic applications. Bioactive Materials, 2018, 3, 1-18.	8.6	171
69	Electrophoretic Deposited Stable Chitosan@MoS₂ Coating with Rapid In Situ Bacteriaâ€Killing Ability under Dualâ€Light Irradiation. Small, 2018, 14, e1704347.	5.2	171
70	Challenges in the use of zinc and its alloys as biodegradable metals: Perspective from biomechanical compatibility. Acta Biomaterialia, 2019, 97, 23-45.	4.1	170
71	Noninvasive rapid bacteria-killing and acceleration of wound healing through photothermal/photodynamic/copper ion synergistic action of a hybrid hydrogel. Biomaterials Science, 2018, 6, 2110-2121.	2.6	168
72	Comparative Study of Torsional and Bending Properties for Six Models of Nickel-Titanium Root Canal Instruments with Different Cross-Sections. Journal of Endodontics, 2006, 32, 372-375.	1.4	167

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73	Microstructure, mechanical property, bio-corrosion and cytotoxicity evaluations of Mg/HA composites. Materials Science and Engineering C, 2010, 30, 827-832.	3.8	165
74	Treatment of MRSA-infected osteomyelitis using bacterial capturing, magnetically targeted composites with microwave-assisted bacterial killing. Nature Communications, 2020, 11, 4446.	5.8	165
75	Effects of alloying elements (Ca and Sr) on microstructure, mechanical property and inÂvitro corrosion behavior of biodegradable Znâ€“1.5Mg alloy. Journal of Alloys and Compounds, 2016, 664, 444-452.	2.8	162
76	Biological Responses and Mechanisms of Human Bone Marrow Mesenchymal Stem Cells to Zn and Mg Biomaterials. ACS Applied Materials & Interfaces, 2017, 9, 27453-27461.	4.0	162
77	2D MOF Periodontitis Photodynamic Ion Therapy. Journal of the American Chemical Society, 2021, 143, 15427-15439.	6.6	161
78	Introduction of antibacterial function into biomedical TiNi shape memory alloy by the addition of element Ag. Acta Biomaterialia, 2011, 7, 2758-2767.	4.1	160
79	A General Synthetic Route to III-V Compound Semiconductor Nanowires. Advanced Materials, 2001, 13, 591-594.	11.1	158
80	Effect of ageing treatment on the transformation behaviour of Tiâ€“50.9at.% Ni alloy. Acta Materialia, 2008, 56, 736-745.	3.8	154
81	Photo-responsive chitosan/Ag/MoS2 for rapid bacteria-killing. Journal of Hazardous Materials, 2020, 383, 121122.	6.5	153
82	InÂVitro Cytotoxicity Evaluation of a Novel Root RepairÂMaterial. Journal of Endodontics, 2013, 39, 478-483.	1.4	149
83	In vitro and in vivo studies on biodegradable CaMgZnSrYb high-entropy bulk metallic glass. Acta Biomaterialia, 2013, 9, 8561-8573.	4.1	149
84	Local Photothermal/Photodynamic Synergistic Therapy by Disrupting Bacterial Membrane To Accelerate Reactive Oxygen Species Permeation and Protein Leakage. ACS Applied Materials & Interfaces, 2019, 11, 17902-17914.	4.0	149
85	Enhanced cytocompatibility and antibacterial property of zinc phosphate coating on biodegradable zinc materials. Acta Biomaterialia, 2019, 98, 174-185.	4.1	148
86	In vitro investigation of Fe30Mn6Si shape memory alloy as potential biodegradable metallic material. Materials Letters, 2011, 65, 540-543.	1.3	145
87	Graphitic carbon nitride-based materials for photocatalytic antibacterial application. Materials Science and Engineering Reports, 2021, 145, 100610.	14.8	145
88	Metallurgical Characterization of Controlled Memory Wire Nickel-Titanium Rotary Instruments. Journal of Endodontics, 2011, 37, 1566-1571.	1.4	144
89	Single-Atom Catalysis for Efficient Sonodynamic Therapy of Methicillin-Resistant Staphylococcus aureus-Infected Osteomyelitis. ACS Nano, 2021, 15, 10628-10639.	7.3	144
90	Mechanical property, biocorrosion and in vitro biocompatibility evaluations of Mgâ€“Liâ€“(Al)â€“(RE) alloys for future cardiovascular stent application. Acta Biomaterialia, 2013, 9, 8488-8498.	4.1	143

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91	In vitro degradation and cytotoxicity of Mg/Ca composites produced by powder metallurgy. Acta Biomaterialia, 2010, 6, 1783-1791.	4.1	142
92	Rapid bacteria trapping and killing of metal-organic frameworks strengthened photo-responsive hydrogel for rapid tissue repair of bacterial infected wounds. Chemical Engineering Journal, 2020, 396, 125194.	6.6	142
93	Dopamine Modified Organicâ€“Inorganic Hybrid Coating for Antimicrobial and Osteogenesis. ACS Applied Materials & Interfaces, 2016, 8, 33972-33981.	4.0	141
94	Microstructure, mechanical properties, in vitro degradation behavior and hemocompatibility of novel Znâ€“Mgâ€“Sr alloys as biodegradable metals. Materials Letters, 2016, 162, 242-245.	1.3	141
95	Bioelectrochemistry of hemoglobin immobilized on a sodium alginate-multiwall carbon nanotubes composite film. Biosensors and Bioelectronics, 2009, 24, 2352-2357.	5.3	140
96	Precisely controlled delivery of magnesium ions thru sponge-like monodisperse PLGA/nano-MgO-alginate core-shell microsphere device to enable in-situ bone regeneration. Biomaterials, 2018, 174, 1-16.	5.7	140
97	Biomedical Applications of Functionalized ZnO Nanomaterials: from Biosensors to Bioimaging. Advanced Materials Interfaces, 2016, 3, 1500494.	1.9	138
98	High-purity magnesium interference screws promote fibrocartilaginous entheses regeneration in the anterior cruciate ligament reconstruction rabbit model via accumulation of BMP-2 and VEGF. Biomaterials, 2016, 81, 14-26.	5.7	136
99	Eradicating Multidrugâ€Resistant Bacteria Rapidly Using a Multi Functional gâ€C₃N₄@ Bi₂S₃ Nanorod Heterojunction with or without Antibiotics. Advanced Functional Materials, 2019, 29, 1900946.	7.8	136
100	Comparative in vitro study on binary Mg-RE (Sc, Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu) alloy systems. Acta Biomaterialia, 2020, 102, 508-528.	4.1	135
101	Bulk-quantity GaN nanowires synthesized from hot filament chemical vapor deposition. Chemical Physics Letters, 2000, 327, 263-270.	1.2	133
102	Near-Infrared Light Triggered Phototherapy and Immunotherapy for Elimination of Methicillin-Resistant Staphylococcus aureus Biofilm Infection on Bone Implant. ACS Nano, 2020, 14, 8157-8170.	7.3	133
103	Hemolysis and cytotoxicity mechanisms of biodegradable magnesium and its alloys. Materials Science and Engineering C, 2015, 46, 202-206.	3.8	131
104	Biodegradable CaMgZn bulk metallic glass for potential skeletal application. Acta Biomaterialia, 2011, 7, 3196-3208.	4.1	128
105	Fabrication, characterization and in vitro drug release behavior of electrospun PLGA/chitosan nanofibrous scaffold. Materials Chemistry and Physics, 2011, 125, 606-611.	2.0	127
106	In Situ Disinfection through Photoinspired Radical Oxygen Species Storage and Thermalâ€Triggered Release from Black Phosphorous with Strengthened Chemical Stability. Small, 2018, 14, 1703197.	5.2	127
107	Nano Ag/ZnO-Incorporated Hydroxyapatite Composite Coatings: Highly Effective Infection Prevention and Excellent Osteointegration. ACS Applied Materials & Interfaces, 2018, 10, 1266-1277.	4.0	127
108	A Biomimetic Hierarchical Scaffold: Natural Growth of Nanotitanates on Three-Dimensional Microporous Ti-Based Metals. Nano Letters, 2008, 8, 3803-3808.	4.5	124

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109	InÂVitro Cytotoxicity of Calcium Silicateâ€“containing Endodontic Sealers. Journal of Endodontics, 2015, 41, 56-61.	1.4	123
110	Porous Iron-Carboxylate Metalâ€“Organic Framework: A Novel Bioplatform with Sustained Antibacterial Efficacy and Nontoxicity. ACS Applied Materials & Interfaces, 2017, 9, 19248-19257.	4.0	123
111	A novel photothermally controlled multifunctional scaffold for clinical treatment of osteosarcoma and tissue regeneration. Materials Today, 2020, 36, 48-62.	8.3	123
112	The enhanced photocatalytic properties of MnO2/g-C3N4 heterostructure for rapid sterilization under visible light. Journal of Hazardous Materials, 2019, 377, 227-236.	6.5	122
113	In vitro degradation performance and biological response of a Mgâ€“Znâ€“Zr alloy. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1778-1784.	1.7	120
114	Surface functionalization of biomaterials by radical polymerization. Progress in Materials Science, 2016, 83, 191-235.	16.0	120
115	TRPM7 kinase-mediated immunomodulation in macrophage plays a central role in magnesium ion-induced bone regeneration. Nature Communications, 2021, 12, 2885.	5.8	118
116	In vitro and in vivo studies of Zn-Mn biodegradable metals designed for orthopedic applications. Acta Biomaterialia, 2020, 108, 358-372.	4.1	117
117	Visible light responsive CuS/ protonated g-C3N4 heterostructure for rapid sterilization. Journal of Hazardous Materials, 2020, 393, 122423.	6.5	116
118	Corrosion resistance and antibacterial activity of zinc-loaded montmorillonite coatings on biodegradable magnesium alloy AZ31. Acta Biomaterialia, 2019, 98, 196-214.	4.1	114
119	Effect of surface modified hydroxyapatite on the tensile property improvement of HA/PLA composite. Applied Surface Science, 2008, 255, 494-497.	3.1	113
120	Evolution of metallic cardiovascular stent materials: A comparative study among stainless steel, magnesium and zinc. Biomaterials, 2020, 230, 119641.	5.7	113
121	Low-modulus Mg/PCL hybrid bone substitute for osteoporotic fracture fixation. Biomaterials, 2013, 34, 7016-7032.	5.7	112
122	Mechanical Strength, Biodegradation, and in Vitro and in Vivo Biocompatibility of Zn Biomaterials. ACS Applied Materials & Interfaces, 2019, 11, 6809-6819.	4.0	111
123	Nanocomposites of poly(l-lactide) and surface-grafted TiO2 nanoparticles: Synthesis and characterization. European Polymer Journal, 2008, 44, 2476-2481.	2.6	109
124	Mechanical properties, in vitro degradation behavior, hemocompatibility and cytotoxicity evaluation of Znâ€“1.2Mg alloy for biodegradable implants. RSC Advances, 2016, 6, 86410-86419.	1.7	108
125	Dual Metalâ€“Organic Framework Heterointerface. ACS Central Science, 2019, 5, 1591-1601.	5.3	108
126	A facile fabrication of novel stuff with antibacterial property and osteogenic promotion utilizing red phosphorus and near-infrared light. Bioactive Materials, 2019, 4, 17-21.	8.6	108

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127	Degradation and cytotoxicity of lotus-type porous pure magnesium as potential tissue engineering scaffold material. Materials Letters, 2010, 64, 1871-1874.	1.3	107
128	In vivo degradation behavior of Ca-deficient hydroxyapatite coated Mgâ€“Znâ€“Ca alloy for bone implant application. Colloids and Surfaces B: Biointerfaces, 2011, 88, 254-259.	2.5	107
129	The microstructure and properties of cyclic extrusion compression treated Mgâ€“Znâ€“Yâ€“Nd alloy for vascular stent application. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 8, 1-7.	1.5	107
130	A review on in vitro corrosion performance test of biodegradable metallic materials. Transactions of Nonferrous Metals Society of China, 2013, 23, 2283-2293.	1.7	107
131	In vitro degradation and biocompatibility of Feâ€“Pd and Feâ€“Pt composites fabricated by spark plasma sintering. Materials Science and Engineering C, 2014, 35, 43-53.	3.8	105
132	Antibacterial Hybrid Hydrogels. Macromolecular Bioscience, 2021, 21, e2000252.	2.1	105
133	Bioinspired and Biomimetic AgNPs/Gentamicin-Embedded Silk Fibroin Coatings for Robust Antibacterial and Osteogenetic Applications. ACS Applied Materials & Interfaces, 2017, 9, 25830-25846.	4.0	104
134	Biodegradable Znâ€“Sr alloy for bone regeneration in rat femoral condyle defect model: In vitro and in vivo studies. Bioactive Materials, 2021, 6, 1588-1604.	8.6	104
135	Enhanced photocatalytic and photothermal properties of ecofriendly metal-organic framework heterojunction for rapid sterilization. Chemical Engineering Journal, 2021, 405, 126730.	6.6	104
136	Relationship between osseointegration and superelastic biomechanics in porous NiTi scaffolds. Biomaterials, 2011, 32, 330-338.	5.7	103
137	Electrophoretic deposition of graphene oxide reinforced chitosanâ€“hydroxyapatite nanocomposite coatings on Ti substrate. Journal of Materials Science: Materials in Medicine, 2016, 27, 48.	1.7	103
138	In vitro corrosion and biocompatibility study of phytic acid modified WE43 magnesium alloy. Applied Surface Science, 2012, 258, 3420-3427.	3.1	102
139	Antibacterial Activity of Silver Doped Titanate Nanowires on Ti Implants. ACS Applied Materials & Interfaces, 2016, 8, 16584-16594.	4.0	102
140	Photoresponsive Materials for Antibacterial Applications. Cell Reports Physical Science, 2020, 1, 100245.	2.8	102
141	Recent Progress in Photocatalytic Antibacterial. ACS Applied Bio Materials, 2021, 4, 3909-3936.	2.3	100
142	In vitro degradation of AZ31 magnesium alloy coated with nano TiO2 film by solâ€“gel method. Applied Surface Science, 2011, 257, 8772-8777.	3.1	99
143	InÂvivo stimulation of bone formation by aluminum and oxygen plasma surface-modified magnesium implants. Biomaterials, 2013, 34, 9863-9876.	5.7	99
144	Influence of artificial biological fluid composition on the biocorrosion of potential orthopedic Mgâ€“Ca, AZ31, AZ91 alloys. Biomedical Materials (Bristol), 2009, 4, 065011.	1.7	97

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145	A pure zinc membrane with degradability and osteogenesis promotion for guided bone regeneration: In vitro and in vivo studies. Acta Biomaterialia, 2020, 106, 396-409.	4.1	97
146	Microstructures of gallium nitride nanowires synthesized by oxide-assisted method. Chemical Physics Letters, 2001, 345, 377-380.	1.2	96
147	The application of poly (glycerolâ€“sebacate) as biodegradable drug carrier. Biomaterials, 2009, 30, 5209-5214.	5.7	96
148	Mechanical Properties of Controlled Memory and Superelastic Nickel-Titanium Wires Used in the Manufacture of Rotary Endodontic Instruments. Journal of Endodontics, 2012, 38, 1535-1540.	1.4	96
149	Additively Manufactured Macroporous Titanium with Silver-Releasing Micro-/Nanoporous Surface for Multipurpose Infection Control and Bone Repair â€“ A Proof of Concept. ACS Applied Materials & Interfaces, 2016, 8, 28495-28510.	4.0	96
150	Biofunctionalization of carbon nanotubes/chitosan hybrids on Ti implants by atom layer deposited ZnO nanostructures. Applied Surface Science, 2017, 400, 14-23.	3.1	96
151	Fatigue behaviors of HP-Mg, Mgâ€“Ca and Mgâ€“Znâ€“Ca biodegradable metals in air and simulated body fluid. Acta Biomaterialia, 2016, 41, 351-360.	4.1	95
152	Interfacial Zinc Phosphate is the Key to Controlling Biocompatibility of Metallic Zinc Implants. Advanced Science, 2019, 6, 1900112.	5.6	95
153	Ultrasonic Interfacial Engineering of Red Phosphorousâ€“Metal for Eradicating MRSA Infection Effectively. Advanced Materials, 2021, 33, e2006047.	11.1	93
154	Direct electrochemistry and electrocatalysis of hemoglobin immobilized in TiO2 nanotube films. Talanta, 2008, 74, 1414-1419.	2.9	92
155	In vitro corrosion, cytotoxicity and hemocompatibility of bulk nanocrystalline pure iron. Biomedical Materials (Bristol), 2010, 5, 065015.	1.7	92
156	Biodegradation behavior of micro-arc oxidation coating on magnesium alloy-from a protein perspective. Bioactive Materials, 2020, 5, 398-409.	8.6	92
157	In Vitro Evaluation of the Feasibility of Commercial Zn Alloys as Biodegradable Metals. Journal of Materials Science and Technology, 2016, 32, 909-918.	5.6	91
158	Photothermy-strengthened photocatalytic activity of polydopamine-modified metal-organic frameworks for rapid therapy of bacteria-infected wounds. Journal of Materials Science and Technology, 2021, 62, 83-95.	5.6	91
159	Effect of aging on the phase transformation and mechanical behavior of Ti36Ni49Hf15 high temperature shape memory alloy. Scripta Materialia, 2000, 42, 341-348.	2.6	90
160	Microstructure, corrosion behavior and cytotoxicity of Zrâ€“Nb alloys for biomedical application. Materials Science and Engineering C, 2012, 32, 851-857.	3.8	89
161	Effects of Mo contents on the microstructure, properties and cytocompatibility of the microwave sintered porous Ti-Mo alloys. Materials Science and Engineering C, 2019, 97, 156-165.	3.8	89
162	Shape memory properties of the Ti36Ni49Hf15 high temperature shape memory alloy. Materials Letters, 2000, 45, 128-132.	1.3	88

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163	Corrosion behaviour of Tiâ€“Nbâ€“Sn shape memory alloys in different simulated body solutions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 438-440, 891-895.	2.6	88
164	Surface modification of an Mg-1Ca alloy to slow down its biocorrosion by chitosan. Biomedical Materials (Bristol), 2009, 4, 044109.	1.7	87
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