Xiao-Nong Zhang

List of Publications by Year
in descending order

65 papers	3,567 citations	236612 25 h-index	133063 59 g-index
65 all docs	65 docs citations	65 times ranked	3084 citing authors

#	Article	IF	Citations
1	Research on an Mgâ€“Zn alloy as a degradable biomaterial. Acta Biomaterialia, 2010, 6, 626-640.	4.1	1,089
2	Electrodeposition of Caâ€“P coatings on biodegradable Mg alloy: In vitro biomineralization behaviorâ˜†. Acta Biomaterialia, 2010, 6, 1736-1742.	4.1	335
3	In vitro degradation, hemolysis and MC3T3-E1 cell adhesion of biodegradable Mgâ€“Zn alloy. Materials Science and Engineering C, 2009, 29, 1907-1912.	3.8	267
4	InÂ vitro and inÂ vivo 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
5	In vitro responses of human bone marrow stromal cells to a fluoridated hydroxyapatite coated biodegradable Mgâ€“Zn alloy. Biomaterials, 2010, 31, 5782-5788.	5.7	174
6	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
7	Interaction between a high purity magnesium surface and PCL and PLA coatings during dynamic degradation. Biomedical Materials (Bristol), 2011, 6, 025005.	1.7	132
8	Development of PLA/Mg composite for orthopedic implant: Tunable degradation and enhanced mineralization. Composites Science and Technology, 2017, 147, 8-15.	3.8	79
9	Biocompatibility of bio-Mg-Zn alloy within bone with heart, liver, kidney and spleen. Science Bulletin, 2009, 54, 484-491.	4.3	48
10	Ag-Incorporated FHA Coating on Pure Mg: Degradation and in Vitro Antibacterial Properties. ACS Applied Materials & Interfaces, 2016, 8, 5093-5103.	4.0	46
11	Local intragranular misorientation accelerates corrosion in biodegradable Mg. Acta Biomaterialia, 2020, 101, 575-585.	4.1	43
12	Dynamic degradation behavior of MgZn alloy in circulating m-SBF. Materials Letters, 2010, 64, 1996-1999.	1.3	41
13	Research of a novel biodegradable surgical staple made of high purity magnesium. Bioactive Materials, 2016, 1, 122-126.	8.6	41
14	High-Purity Magnesium Staples Suppress Inflammatory Response in Rectal Anastomoses. ACS Applied Materials & Interfaces, 2017, 9, 9506-9515.	4.0	38
15	Guided proliferation and bone-forming functionality on highly ordered large diameter TiO2 nanotube arrays. Materials Science and Engineering C, 2015, 53, 272-279.	3.8	37
16	Hierarchical titanium surface textures affect osteoblastic functions. Journal of Biomedical Materials Research - Part A, 2011, 99A, 666-675.	2.1	36
17	In vitro and in vivo corrosion measurements of Mgâ€“6Zn alloys in the bile. Materials Science and Engineering C, 2014, 42, 116-123.	3.8	36
18	The in vitro indirect cytotoxicity test and in vivo interface bioactivity evaluation of biodegradable FHA coated Mgâ€“Zn alloys. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1785-1788.	1.7	34

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19	Translational status of biomedical Mg devices in China. Bioactive Materials, 2019, 4, 358-365.	8.6	33
20	Microstructure controls the corrosion behavior of a lean biodegradable Mgâ€“2Zn alloy. Acta Biomaterialia, 2020, 107, 349-361.	4.1	32
21	Electrochemical property and in vitro degradation of DCPDâ€“PCL composite coating on the biodegradable Mgâ€“Zn alloy. Materials Letters, 2012, 68, 435-438.	1.3	30
22	Magnesium inference screw supports early graft incorporation with inhibition of graft degradation in anterior cruciate ligament reconstruction. Scientific Reports, 2016, 6, 26434.	1.6	28
23	Crevice corrosion â€“ A newly observed mechanism of degradation in biomedical magnesium. Acta Biomaterialia, 2019, 98, 152-159.	4.1	28
24	Biodegradable magnesium implants: a potential scaffold for bone tumor patients. Science China Materials, 2021, 64, 1007-1020.	3.5	28
25	In vitro and in vivo assessment of the biocompatibility of an Mgâ€“6Zn alloy in the bile. Journal of Materials Science: Materials in Medicine, 2014, 25, 471-480.	1.7	25
26	Accelerating Corrosion of Pure Magnesium Co-implanted with Titanium in Vivo. Scientific Reports, 2017, 7, 41924.	1.6	25
27	Degradable magnesium implants inhibit gallbladder cancer. Acta Biomaterialia, 2021, 128, 514-522.	4.1	25
28	In vivo and in vitro evaluation of effects of Mg-6Zn alloy on apoptosis of common bile duct epithelial cell. BioMetals, 2014, 27, 1217-1230.	1.8	24
29	Controlled release of hydrogen by implantation of magnesium induces P53-mediated tumor cells apoptosis. Bioactive Materials, 2022, 9, 385-396.	8.6	24
30	Surface modification of pure titanium treated with B4C at high temperature. Surface and Coatings Technology, 2006, 200, 3016-3020.	2.2	23
31	In vitro and in vivo mineralization and osseointegration of nanostructured Ti6Al4V. Journal of Nanoparticle Research, 2011, 13, 645-654.	0.8	23
32	<i>InÂvivo</i> and <i>inÂvitro</i> assessment of the biocompatibility and degradation of high-purity Mg anastomotic staples. Journal of Biomaterials Applications, 2017, 31, 1203-1214.	1.2	21
33	High-purity magnesium pin enhances bone consolidation in distraction osteogenesis model through activation of the VHL/HIF-1Î±/VEGF signaling. Journal of Biomaterials Applications, 2020, 35, 224-236.	1.2	21
34	Biodegradable Mg Implants Suppress the Growth of Ovarian Tumor. ACS Biomaterials Science and Engineering, 2020, 6, 1755-1763.	2.6	20
35	High-purity magnesium pin enhances bone consolidation in distraction osteogenesis via regulating Ptch protein activating Hedgehog-alternative Wnt signaling. Bioactive Materials, 2021, 6, 1563-1574.	8.6	20
36	Comparison of the effects of Mgâ€“6Zn and titanium on intestinal tract in vivo. Journal of Materials Science: Materials in Medicine, 2013, 24, 1515-1525.	1.7	19

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37	Effects of biodegradable Mgâ€“6Zn alloy extracts on apoptosis of intestinal epithelial cells. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2012, 177, 388-393.	1.7	17
38	Shape and Site Dependent in Vivo Degradation of Mg-Zn Pins in Rabbit Femoral Condyle. International Journal of Molecular Sciences, 2014, 15, 2959-2970.	1.8	17
39	Influence of Mg2+ concentration, pH value and specimen parameter on the hemolytic property of biodegradable magnesium. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1823-1826.	1.7	16
40	Effect of fluoride coating on in vitro dynamic degradation of Mgâ€“Zn alloy. Materials Letters, 2011, 65, 2568-2571.	1.3	16
41	Site-Dependent Osseointegration of Biodegradable High-Purity Magnesium for Orthopedic Implants in Femoral Shaft and Femoral Condyle of New Zealand Rabbits. Journal of Materials Science and Technology, 2016, 32, 883-888.	5.6	16
42	A novel lean alloy of biodegradable Mgâ€“2Zn with nanograins. Bioactive Materials, 2021, 6, 4333-4341.	8.6	16
43	Comparison of the effects of Mgâ€“6Zn and Tiâ€“3Alâ€“2.5V alloys on TGF-Î²/TNF-Î±/VEGF/b-FGF in the healing of the intestinal tract in vivo. Biomedical Materials (Bristol), 2014, 9, 025011.	1.7	15
44	In vitro degradation and mineralization of high-purity magnesium in three physiological fluids. Materials Letters, 2019, 240, 279-283.	1.3	15
45	Effects of biodegradable Mgâ€“6Zn alloy extracts on cell cycle of intestinal epithelial cells. Journal of Biomaterials Applications, 2013, 27, 739-747.	1.2	14
46	Synergistic effect of a biodegradable Mgâ€“Zn alloy on osteogenic activity and anti-biofilm ability: an in vitro and in vivo study. RSC Advances, 2016, 6, 45219-45230.	1.7	14
47	Study of Cell Behaviors on Anodized TiO2 Nanotube Arrays with Coexisting Multi-Size Diameters. Nano-Micro Letters, 2016, 8, 61-69.	14.4	14
48	Assessment of the Biocompatibility and Biological Effects of Biodegradable Pure Zinc Material in the Colorectum. ACS Biomaterials Science and Engineering, 2018, 4, 4095-4103.	2.6	14
49	Effects of MgF2 coating on the biodegradation and biological properties of magnesium. Surface and Coatings Technology, 2021, 422, 127552.	2.2	14
50	Cellular different responses to different nanotube inner diameter on surface of pure tantalum. Materials Science and Engineering C, 2020, 109, 110520.	3.8	12
51	Influence of Heat Treatments on In Vitro Degradation Behavior of Mgâ€6Zn Alloy Studied by Electrochemical Measurements. Advanced Engineering Materials, 2010, 12, B170.	1.6	11
52	In vitro crevice corrosion of biodegradable magnesium in different solutions. Journal of Materials Science and Technology, 2020, 52, 83-88.	5.6	10
53	Transient and Biocompatible Resistive Switching Memory Based on Electrochemicallyâ€Deposited Zinc Oxide. Advanced Electronic Materials, 2021, 7, 2100322.	2.6	10
54	In vitro and in vivo evaluation of effects of Mgâ€“6Zn alloy on tight junction of intestinal epithelial cell. Transactions of Nonferrous Metals Society of China, 2015, 25, 3760-3766.	1.7	9

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55	Multifunctional Magnesium Anastomosis Staples for Wound Closure and Inhibition of Tumor Recurrence and Metastasis. ACS Biomaterials Science and Engineering, 2021, 7, 5269-5278.	2.6	9
56	Influence of dicalcium phosphate dihydrate coating on the in vitro degradation of Mg-Zn alloy. Frontiers of Materials Science in China, 2010, 4, 116-119.	0.5	8
57	Doping inorganic ions to regulate bioactivity of Caâ€“P coating on bioabsorbable high purity magnesium. Progress in Natural Science: Materials International, 2014, 24, 479-485.	1.8	8
58	Cell behaviors on surface of pure tantalum with nano-dimpled structure. Rare Metals, 2019, 38, 543-551.	3.6	8
59	Solâ€“Gel-Derived Biodegradable Er-Doped ZnO/Polyethylene Glycol Nanoparticles for Cell Imaging. ACS Applied Nano Materials, 2022, 5, 7103-7112.	2.4	7
60	Increased osteoblast adhesion on nanophase Ti6Al4V. Science Bulletin, 2008, 53, 1757-1762.	4.3	6
61	The Bioactivated Interfacial Behavior of the Fluoridated Hydroxyapatite-Coated Mg-Zn Alloy in Cell Culture Environments. Bioinorganic Chemistry and Applications, 2011, 2011, 1-7.	1.8	6
62	Magnesium promotes osteogenesis via increasing <scp>OPN</scp> expression and activating <scp>CaM</scp>/<scp>CaMKIV</scp>/<scp>CREB1</scp> pathway. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, 110, 1594-1603.	1.6	5
63	Effect of Galvanic Corrosion on the Degradability of Biomedical Magnesium. Frontiers in Materials, 2021, 8, .	1.2	5
64	Dosageâ€Dependent Antimicrobial Activity of DNAâ€Histone Microwebs Against <i>Staphylococcus Aureus</i>. Advanced Materials Interfaces, 2021, 8, 2100717.	1.9	4
65	In vitro evaluation of effects of Mg-6Zn alloy extracts on apoptosis of intestinal epithelial cells. Journal Wuhan University of Technology, Materials Science Edition, 2016, 31, 1387-1393.	0.4	0