Huinan Liu

List of Publications by Year
in descending order

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123	4,635	87843	106281
papers	citations	38 h-index	65 g-index

126	126	126	5856
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	In vivo degradability and biocompatibility of a rheo-formed Mgâ€“Znâ€“Sr alloy for ureteral implantation. Journal of Magnesium and Alloys, 2022, 10, 1631-1639.	5.5	11
2	In vivo urinary compatibility of Mg-Sr-Ag alloy in swine model. Bioactive Materials, 2022, 7, 254-262.	8.6	8
3	A review on the 3D printing of composite scaffolds for bone tissue engineering. , 2022, , 201-241.		0
4	Angiogenic Hyaluronic Acid Hydrogels with Curcumin-Coated Magnetic Nanoparticles for Tissue Repair. ACS Applied Materials & Interfaces, 2022, 14, 11051-11067.	4.0	29
5	Direct and Indirect Culture Methods for Studying Biodegradable Implant Materials In Vitro. Journal of Visualized Experiments, 2022, , .	0.2	1
6	Nanocrystalline Yttria-Stabilized Zirconia Ceramics for Cranial Window Applications. ACS Applied Bio Materials, 2022, 5, 2664-2675.	2.3	0
7	Superhydrophobic fluoride conversion coating on bioresorbable magnesium alloy â€“ fabrication, characterization, degradation and cytocompatibility with BMSCs. Journal of Magnesium and Alloys, 2021, 9, 1246-1260.	5.5	28
8	Tunable Crosslinking, Reversible Phase Transition, and 3D Printing of Hyaluronic Acid Hydrogels via Dynamic Coordination of Innate Carboxyl Groups and Metallic Ions. ACS Applied Bio Materials, 2021, 4, 2408-2428.	2.3	18
9	Corrosion and Biocompatibility of Pure Zn with a Micro-Arc-Oxidized Layer Coated with Calcium Phosphate. Coatings, 2021, 11, 1425.	1.2	8
10	Synthesis, characterization, and cytocompatibility of yttria stabilized zirconia nanopowders for creating a window to the brain. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 925-938.	1.6	10
11	Photo-assisted green synthesis of silver doped silk fibroin/carboxymethyl cellulose nanocomposite hydrogels for biomedical applications. Materials Science and Engineering C, 2020, 107, 110219.	3.8	37
12	Corrosion characteristics of zincâ€“zirconium alloy in câ€“SBF and its biocompatibility in vitro/in vivo. Materials and Corrosion - Werkstoffe Und Korrosion, 2020, 71, 196-208.	0.8	10
13	Magnesium-based biodegradable microelectrodes for neural recording. Materials Science and Engineering C, 2020, 110, 110614.	3.8	8
14	Antimicrobial Bioresorbable Mgâ€“Znâ€“Ca Alloy for Bone Repair in a Comparison Study with Mgâ€“Znâ€“Sr Alloy and Pure Mg. ACS Biomaterials Science and Engineering, 2020, 6, 517-538.	2.6	31
15	In vivo assessment of biodegradable magnesium alloy ureteral stents in a pig model. Acta Biomaterialia, 2020, 116, 415-425.	4.1	38
16	Antimicrobial Properties of MgO Nanostructures on Magnesium Substrates. ACS Omega, 2020, 5, 24613-24627.	1.6	29
17	Microstructure of Biodegradable Zn-Fe Alloys and Mechanical and Corrosion Properties. Jom, 2020, 72, 3661-3671.	0.9	10
18	A study on calcium phosphate/barium titanate composites: phase characterization, piezoelectric property, and cytocompatibility. Journal of the Australian Ceramic Society, 2020, 56, 1197-1216.	1.1	3

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19	Biodegradable Materials for Medical Applications II. Jom, 2020, 72, 1830-1832.	0.9	3
20	Engineering Nano-to-Micron-Patterned Polymer Coatings on Bioresorbable Magnesium for Controlling Human Endothelial Cell Adhesion and Morphology. ACS Biomaterials Science and Engineering, 2020, 6, 3878-3898.	2.6	9
21	Fabrication and Characterization of Biodegradable Metal Based Microelectrodes for In Vivo Neural Recording. MRS Advances, 2019, 4, 2471-2477.	0.5	2
22	Ultra-fine-grained Zn-0.5Mn alloy processed by multi-pass hot extrusion: Grain refinement mechanism and room-temperature superplasticity. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 748, 262-266.	2.6	41
23	Degradation behaviors and cytocompatibility of Mg/Î²â€tricalcium phosphate composites produced by spark plasma sintering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 2238-2253.	1.6	19
24	Nano-to-Submicron Hydroxyapatite Coatings for Magnesium-based Bioresorbable Implants â€“ Deposition, Characterization, Degradation, Mechanical Properties, and Cytocompatibility. Scientific Reports, 2019, 9, 810.	1.6	29
25	Influence of Mg on the mechanical properties and degradation performance of as-extruded Zn Mg Ca alloys: In vitro and in vivo behavior. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 95, 220-231.	1.5	38
26	Evaluation of asâ€extruded ternary Znâ€“Mgâ€“Zr alloys for biomedical implantation material: In vitro and in vivo behavior. Materials and Corrosion - Werkstoffe Und Korrosion, 2019, 70, 1056-1070.	0.8	32
27	A portable device for studying the effects of fluid flow on degradation properties of biomaterials inside cell incubators. International Journal of Energy Production and Management, 2019, 6, 39-48.	1.9	4
28	Electrophoretic Deposition of Magnesium Oxide Nanoparticles on Magnesium: Processing Parameters, Microstructures, Degradation, and Cytocompatibility. ACS Applied Bio Materials, 2019, 2, 5634-5652.	2.3	7
29	Dispersibility and characterization of polyvinyl alcoholâ€“coated magnetic nanoparticles in poly(glycerol sebacate) for biomedical applications. Journal of Nanoparticle Research, 2019, 21, 1.	0.8	12
30	Bone marrow derived mesenchymal stem cell response to the RF magnetron sputter deposited hydroxyapatite coating on AZ91 magnesium alloy. Materials Chemistry and Physics, 2019, 221, 89-98.	2.0	44
31	Responses of human urothelial cells to magnesium-zinc-strontium alloys and associated insoluble degradation products for urological stent applications. Materials Science and Engineering C, 2019, 96, 248-262.	3.8	23
32	In vitro evaluation of MgSr and MgCaSr alloys via direct culture with bone marrow derived mesenchymal stem cells. Acta Biomaterialia, 2018, 72, 407-423.	4.1	48
33	Development of a novel loading device for studying magnesium degradation under compressive load for implant applications. Materials Letters, 2018, 217, 27-32.	1.3	12
34	Electrochemical deposition of conductive polymers onto magnesium microwires for neural electrode applications. Journal of Biomedical Materials Research - Part A, 2018, 106, 1887-1895.	2.1	23
35	Antimicrobial Activities and Mechanisms of Magnesium Oxide Nanoparticles (nMgO) against Pathogenic Bacteria, Yeasts, and Biofilms. Scientific Reports, 2018, 8, 16260.	1.6	188
36	Characterization of Hydroxyapatite Coated Mg for Biomedical Applications. MRS Advances, 2018, 3, 2385-2389.	0.5	3

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37	Label-free distinction between p53+/+ and p53 -/- colon cancer cells using a graphene based SERS platform. Biosensors and Bioelectronics, 2018, 118, 108-114.	5.3	25
38	Magnesium-based Biodegradable Materials for Biomedical Applications. MRS Advances, 2018, 3, 2359-2364.	0.5	13
39	Dissociation of magnesium oxide and magnesium hydroxide nanoparticles in physiologically relevant fluids. Journal of Nanoparticle Research, 2018, 20, 1.	0.8	45
40	Optical and biological properties of polymerâ€based nanocomposites with improved dispersion of ceramic nanoparticles. Journal of Biomedical Materials Research - Part A, 2018, 106, 2692-2707.	2.1	10
41	A Comparison Study on the Degradation and Cytocompatibility of Mg-4Zn-xSr Alloys in Direct Culture. ACS Biomaterials Science and Engineering, 2017, 3, 540-550.	2.6	20
42	Bioceramics for Orthopaedic Device Applications: Hydroxyapatite. , 2017, , 49-77.		2
43	Comparison Study on Four Biodegradable Polymer Coatings for Controlling Magnesium Degradation and Human Endothelial Cell Adhesion and Spreading. ACS Biomaterials Science and Engineering, 2017, 3, 936-950.	2.6	56
44	Anodization of magnesium for biomedical applications â€“ Processing, characterization, degradation and cytocompatibility. Acta Biomaterialia, 2017, 62, 397-417.	4.1	57
45	Nanomaterials for treating cardiovascular diseases: A review. Bioactive Materials, 2017, 2, 185-198.	8.6	82
46	Degradation of Bioresorbable Mgâ€“4Znâ€“1Sr Intramedullary Pins and Associated Biological Responses in Vitro and in Vivo. ACS Applied Materials & Interfaces, 2017, 9, 44332-44355.	4.0	34
47	The Effects of Serum Proteins on Magnesium Alloy Degradation in Vitro. Scientific Reports, 2017, 7, 14335.	1.6	37
48	Cytocompatibility and early inflammatory response of human endothelial cells in direct culture with Mg-Zn-Sr alloys. Acta Biomaterialia, 2017, 48, 499-520.	4.1	74
49	The effects of eutectic silicon on grain refinement in an Alâ€“Si alloy processed by accumulative continuous extrusion forming. Journal of Materials Science, 2017, 52, 1137-1148.	1.7	22
50	Optimization of nano-hydroxyapatite/poly(lactic-co-glycolic acid) coatings on magnesium substrates using one-step electrophoretic deposition. Materials Letters, 2017, 186, 12-16.	1.3	17
51	Surface Modification and Coatings for Controlling the Degradation and Bioactivity of Magnesium Alloys for Medical Applications. , 2017, , 331-363.		8
52	Measuring the mass, volume, and density of microgram-sized objects in fluid. PLoS ONE, 2017, 12, e0174068.	1.1	11
53	Grain refinement in an Al Er alloy during accumulative continuous extrusion forming. Journal of Alloys and Compounds, 2016, 680, 283-290.	2.8	35
54	Cytocompatibility of Magnesium Alloys with Human Urothelial Cells: A Comparison of Three Culture Methodologies. ACS Biomaterials Science and Engineering, 2016, 2, 1559-1571.	2.6	27

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55	A systemic study on key parameters affecting nanocomposite coatings on magnesium substrates. Acta Biomaterialia, 2016, 36, 332-349.	4.1	23
56	An in vivo study on the metabolism and osteogenic activity of bioabsorbable Mgâ€“1Sr alloy. Acta Biomaterialia, 2016, 29, 455-467.	4.1	85
57	Concentration-dependent behaviors of bone marrow derived mesenchymal stem cells and infectious bacteria toward magnesium oxide nanoparticles. Acta Biomaterialia, 2016, 35, 341-356.	4.1	63
58	The effects of poly(3,4-ethylenedioxythiophene) coating on magnesium degradation and cytocompatibility with human embryonic stem cells for potential neural applications. Journal of Biomedical Materials Research - Part A, 2015, 103, 25-37.	2.1	16
59	Electrophoretic deposition and characterization of nanocomposites and nanoparticles on magnesium substrates. Nanotechnology, 2015, 26, 175102.	1.3	34
60	In vitro interactions of blood, platelet, and fibroblast with biodegradable magnesiumâ€zincâ€strontium alloys. Journal of Biomedical Materials Research - Part A, 2015, 103, 2974-2986.	2.1	19
61	Nanostructured calcium phosphate coatings on magnesium alloys: characterization and cytocompatibility with mesenchymal stem cells. Journal of Materials Science: Materials in Medicine, 2015, 26, 189.	1.7	13
62	Magnetic Nanocomposite Hydrogel for Potential Cartilage Tissue Engineering: Synthesis, Characterization, and Cytocompatibility with Bone Marrow Derived Mesenchymal Stem Cells. ACS Applied Materials & Interfaces, 2015, 7, 20987-20998.	4.0	123
63	Label-Free SERS Selective Detection of Dopamine and Serotonin Using Graphene-Au Nanopyramid Heterostructure. Analytical Chemistry, 2015, 87, 10255-10261.	3.2	146
64	Investigation of magnesiumâ€“zincâ€“calcium alloys and bone marrow derived mesenchymal stem cell response in direct culture. Acta Biomaterialia, 2015, 12, 298-321.	4.1	71
65	Investigation on magnesium degradation under flow versus static conditions using a novel impedance-driven flow apparatus. Progress in Natural Science: Materials International, 2014, 24, 554-560.	1.8	13
66	Anodic Growth and Biomedical Applications of TiO₂ Nanotubes. Journal of Biomedical Nanotechnology, 2014, 10, 2977-3003.	0.5	53
67	Nanostructured Ceramic and Ceramic-Polymer Composites as Dual Functional Interface for Bioresorbable Metallic Implants. Materials Research Society Symposia Proceedings, 2014, 1621, 39-45.	0.1	3
68	Degradation and antibacterial properties of magnesium alloys in artificial urine for potential resorbable ureteral stent applications. Journal of Biomedical Materials Research - Part A, 2014, 102, 781-792.	2.1	128
69	Bone Marrow Stromal Cell Adhesion and Morphology on Micro- and Sub-Micropatterned Titanium. Journal of Biomedical Nanotechnology, 2014, 10, 660-668.	0.5	41
70	In vitro degradation of four magnesiumâ€“zincâ€“strontium alloys and their cytocompatibility with human embryonic stem cells. Journal of Materials Science: Materials in Medicine, 2013, 24, 989-1003.	1.7	54
71	Electrochemical deposition and evaluation of electrically conductive polymer coating on biodegradable magnesium implants for neural applications. Journal of Materials Science: Materials in Medicine, 2013, 24, 307-316.	1.7	31
72	Nanostructured hydroxyapatite/poly(lactic-co-glycolic acid) composite coating for controlling magnesium degradation in simulated body fluid. Nanotechnology, 2013, 24, 375103.	1.3	56

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73	The effects of nanostructured hydroxyapatite coating on the biodegradation and cytocompatibility of magnesium implants. Journal of Biomedical Materials Research - Part A, 2013, 101A, 2340-2354.	2.1	72
74	Development and evaluation of a magnesiumâ€“zincâ€“strontium alloy for biomedical applications â€" Alloy processing, microstructure, mechanical properties, and biodegradation. Materials Science and Engineering C, 2013, 33, 3661-3669.	3.8	91
75	Graphene and carbon nanotubeâ€“graphene hybrid nanomaterials for human embryonic stem cell culture. Materials Letters, 2013, 92, 122-125.	1.3	44
76	An In Vitro Mechanism Study on the Proliferation and Pluripotency of Human Embryonic Stems Cells in Response to Magnesium Degradation. PLoS ONE, 2013, 8, e76547.	1.1	36
77	A Review of Current Advances in Biomaterials for Neural Tissue Regeneration. Recent Patents on Biomedical Engineering, 2013, 6, 29-39.	0.5	5
78	A Study on Factors Affecting the Degradation of Magnesium and a Magnesium-Yttrium Alloy for Biomedical Applications. PLoS ONE, 2013, 8, e65603.	1.1	61
79	Interactions between aggressive ions and the surface of a magnesium-yttrium alloy. , 2012, 2012, 5670-3.		1
80	In vitro degradation and cytocompatibility of Magnesium-Zinc-Strontium alloys with human embryonic stem cells. , 2012, 2012, 2432-5.		4
81	Improved bone marrow stromal cell adhesion on micropatterned Titanium surfaces. , 2012, 2012, 5666-9.		3
82	Electrochemical Deposition and Evaluation of Conductive Polymer Coating on Biodegradable Magnesium Implants for Neural Applications. Materials Research Society Symposia Proceedings, 2012, 1466, 44.	0.1	0
83	Antimicrobial properties of biodegradable magnesium for next generation ureteral stent applications. , 2012, 2012, 1378-81.		3
84	Nanophase hydroxyapatite and poly(lactide-co-glycolide) composites promote human mesenchymal stem cell adhesion and osteogenic differentiation in vitro. Journal of Materials Science: Materials in Medicine, 2012, 23, 2543-2552.	1.7	53
85	Effects of magnesium on growth and proliferation of human embryonic stem cells. , 2012, 2012, 723-6.		5
86	Nanotechnology Enabled Drug Delivery Systems for Bone and Cartilage Regeneration. Recent Patents on Biomedical Engineering, 2012, 5, 51-56.	0.5	0
87	Effects of pre-precipitation of Cr2N on microstructures and properties of high nitrogen stainless steel. Journal of Central South University, 2012, 19, 1189-1195.	1.2	16
88	In vitro evaluation of the surface effects on magnesiumâ€yttrium alloy degradation and mesenchymal stem cell adhesion. Journal of Biomedical Materials Research - Part A, 2012, 100A, 477-485.	2.1	66
89	Electrodeposition of hydroxyapatite coating on Mgâ€4.0Znâ€1.0Caâ€0.6Zr alloy and in vitro evaluation of degradation, hemolysis, and cytotoxicity. Journal of Biomedical Materials Research - Part A, 2012, 100A, 999-1015.	2.1	90
90	Nanomaterials enhance osteogenic differentiation of human mesenchymal stem cells similar to a short peptide of BMP-7. International Journal of Nanomedicine, 2011, 6, 2769.	3.3	66

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91	Controlling the Biodegradation of Magnesium Implants Through Nanostructured Coatings. , 2011, , .		1
92	The effects of surface and biomolecules on magnesium degradation and mesenchymal stem cell adhesion. Journal of Biomedical Materials Research - Part A, 2011, 99A, 249-260.	2.1	59
93	Enhanced biological and mechanical properties of well-dispersed nanophase ceramics in polymer composites: From 2D to 3D printed structures. Materials Science and Engineering C, 2011, 31, 77-89.	3.8	38
94	Biodegradable Metals and Responsive Biosensors for Musculoskeletal Applications. , 2011, , 115-137.		3
95	Ceramic/polymer nanocomposites with tunable drug delivery capability at specific disease sites. Journal of Biomedical Materials Research - Part A, 2010, 93A, 1180-1192.	2.1	33
96	Mechanical properties of dispersed ceramic nanoparticles in polymer composites for orthopedic applications. International Journal of Nanomedicine, 2010, 5, 299.	3.3	84
97	Osteoblast adhesion on novel machinable calcium phosphate/lanthanum phosphate composites for orthopedic applications. Journal of Biomedical Materials Research - Part A, 2009, 89A, 727-733.	2.1	22
98	Novel nanostructured hydroxyapatite coating for dental and orthopedic implants. Jom, 2009, 61, 67-69.	0.9	12
99	Increased osteoblast adhesion on nanoparticulate calcium phosphates with higher Ca/P ratios. Journal of Biomedical Materials Research - Part A, 2008, 85A, 236-241.	2.1	60
100	An in vitro evaluation of the Ca/P ratio for the cytocompatibility of nano-to-micron particulate calcium phosphates for bone regeneration. Acta Biomaterialia, 2008, 4, 1472-1479.	4.1	206
101	Improved Mechanical Properties of Nanocrystalline Hydroxyapatite Coating for Dental and Orthopedic Implants. , 2008, , .		0
102	Nano-dispersed Particulate Ceramics in Poly-Lactide-Co-Glycolide Composites Improve Implantable Bone Substitute Properties. Materials Research Society Symposia Proceedings, 2007, 1056, 1.	0.1	0
103	Bioinspired Nanocomposites for Orthopedic Applications. , 2007, , 1-51.		14
104	Nanophase ceramic/polymer composite scaffolds for bone regeneration: From 2D to 3D. , 2007, , .		0
105	Increased osteoblast adhesion on nanograined hydroxyapatite and tricalcium phosphate containing calcium titanate. Journal of Biomedical Materials Research - Part A, 2007, 80A, 990-997.	2.1	54
106	Nanomedicine for implants: A review of studies and necessary experimental tools. Biomaterials, 2007, 28, 354-369.	5.7	513
107	Increased osteoblast functions among nanophase titania/poly(lactideâ€•co â€glycolide) composites of the highest nanometer surface roughness. Journal of Biomedical Materials Research - Part A, 2006, 78A, 798-807.	2.1	100
108	Ceramic/Polymer Nanocomposite Tissue Engineering Scaffolds for More Effective Orthopedic Applications: From 2D Surfaces to Novel 3D Architectures. Materials Research Society Symposia Proceedings, 2006, 950, 1.	0.1	1

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109	Increased Osteoblast Adhesion on Nanograined Hydroxyapatite and Tricalcium Phosphate Calcium Titanate Composites. Materials Research Society Symposia Proceedings, 2006, 950, 1.	0.1	0
110	Less harmful acidic degradation of poly(lactic-co-glycolic acid) bone tissue engineering scaffolds through titania nanoparticle addition. International Journal of Nanomedicine, 2006, 1, 541-545.	3.3	179
111	Increased Osteoblast Functions on (Poly-lactic-co-glycolic acid) with Highly Dispersed Nanophase Titania. Journal of Biomedical Nanotechnology, 2005, 1, 83-89.	0.5	9
112	Surface Roughness Values Closer to Bone for Titania Nanoparticle/Poly-lactic-co-glycolic Acid (PLGA) Composites Increases Bone Cell Adhesion. Materials Research Society Symposia Proceedings, 2005, 873, 1.	0.1	0
113	Increased osteoblast functions on nanophase titania dispersed in poly-lactic-co-glycolic acid composites. Nanotechnology, 2005, 16, S601-S608.	1.3	59
114	Mimicking the nanofeatures of bone increases bone-forming cell adhesion and proliferation. Nanotechnology, 2005, 16, 1828-1835.	1.3	194
115	Enhanced Osteoblast Functions on Nanophase Titania in Poly-lactic-co-glycolic Acid (PLGA) Composites. Materials Research Society Symposia Proceedings, 2004, 845, 175.	0.1	0
116	Characterization of Magnesium Alloy Degradation in Whole Blood and Platelet Rich Plasma. Advanced Materials Research, 0, 922, 543-548.	0.3	0
117	Surface Characterization of Magnesium Anodized in a 10M KOH Electrolyte. Advanced Materials Research, 0, 922, 513-518.	0.3	1
118	Cytocompatibility of Magnesium-Zinc-Calcium Alloys with Bone Marrow Derived Mesenchymal Stem Cells. Advanced Materials Research, 0, 922, 1-6.	0.3	0
119	Investigation of Biodegradable Composite Coated Magnesium Alloy Using Optical Coherence Tomography. Advanced Materials Research, 0, 922, 292-297.	0.3	0
120	Electrophoretic Deposition and Characterization of Biocomposites on Magnesium for Orthopedic Applications. Advanced Materials Research, 0, 922, 761-766.	0.3	7
121	Nanomaterials as Improved Implants: a of Review Recent Studies. Ceramic Engineering and Science Proceedings, 0, , 165-180.	0.1	1
122	Nanophase Hydroxyapatite in Biodegradable Polymer Composites as Novel Drug-Carrying Implants for Treating Bone Diseases at Targeted Sites. Ceramic Transactions, 0, , 183-191.	0.1	0
123	Synthesis and Characterization of Al, Ag, Ti, Cu, and B Substituted Hydroxylapatite. , 0, , 131-137.		0