

Donghui Zhu

List of Publications by Year in descending order

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Version: 2024-02-01

85
papers

5,238
citations

94269

37
h-index

88477

70
g-index

89
all docs

89
docs citations

89
times ranked

5737
citing authors

#	ARTICLE	IF	CITATIONS
1	3D Printing of Ceramic Biomaterials. <i>Engineered Regeneration</i> , 2022, 3, 41-52.	3.0	16
2	Biodegradable Zn–Sr alloys with enhanced mechanical and biocompatibility for biomedical applications. <i>Smart Materials in Medicine</i> , 2022, 3, 117-127.	3.7	12
3	Applications of 3D printed chimeric DNA biomaterials. <i>Engineered Regeneration</i> , 2022, 3, 13-23.	3.0	2
4	Improved mechanical, degradation, and biological performances of Zn–Fe alloys as bioresorbable implants. <i>Bioactive Materials</i> , 2022, 17, 334-343.	8.6	7
5	Cyclic microchip assay for measurement of hundreds of functional proteins in single neurons. <i>Nature Communications</i> , 2022, 13, .	5.8	6
6	Cellular mechanisms of biodegradable zinc and magnesium materials on promoting angiogenesis. , 2022, 139, 213023.		8
7	Designing Better Cardiovascular Stent Materials: A Learning Curve. <i>Advanced Functional Materials</i> , 2021, 31, .	7.8	50
8	A synthesized semi-aromatic copolyamide through synergy of three different kinds of monomers: Toward high transparency, excellent heat resistance and melt flowing property. <i>Journal of Applied Polymer Science</i> , 2021, 138, 49678.	1.3	4
9	Nanoparticles as delivery vehicles for antiviral therapeutic drugs. <i>Engineered Regeneration</i> , 2021, 2, 31-46.	3.0	29
10	Alzheimer’s pathogenic mechanisms and underlying sex difference. <i>Cellular and Molecular Life Sciences</i> , 2021, 78, 4907-4920.	2.4	82
11	Alloying design strategy for biodegradable zinc alloys based on first-principles study of solid solution strengthening. <i>Materials and Design</i> , 2021, 204, 109676.	3.3	27
12	Toward a Better Regeneration through Implant-Mediated Immunomodulation: Harnessing the Immune Responses. <i>Advanced Science</i> , 2021, 8, e2100446.	5.6	71
13	Vascular Dementia and Underlying Sex Differences. <i>Frontiers in Aging Neuroscience</i> , 2021, 13, 720715.	1.7	27
14	Additive manufacturing and 3D printing of metallic biomaterials. <i>Engineered Regeneration</i> , 2021, 2, 288-299.	3.0	27
15	Salt Preform Texturing of Absorbable Zn Substrates for Bone-Implant Applications. <i>Jom</i> , 2020, 72, 1902-1909.	0.9	9
16	Evolution of metallic cardiovascular stent materials: A comparative study among stainless steel, magnesium and zinc. <i>Biomaterials</i> , 2020, 230, 119641.	5.7	113
17	Blood-Brain Barrier (BBB) Permeability and Transport Measurement In Vitro and In Vivo. <i>Methods in Molecular Biology</i> , 2020, 2367, 105-122.	0.4	8
18	Comp34 displays potent preclinical antitumor efficacy in triple-negative breast cancer via inhibition of NUDT3-AS4, a novel oncogenic long noncoding RNA. <i>Cell Death and Disease</i> , 2020, 11, 1052.	2.7	11

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19	Micro-/Nanotopography on Bioresorbable Zinc Dictates Cytocompatibility, Bone Cell Differentiation, and Macrophage Polarization. <i>Nano Letters</i> , 2020, 20, 4594-4602.	4.5	55
20	Hydrogen generating patch improves skin cell viability, migration activity, and collagen expression. <i>Engineered Regeneration</i> , 2020, 1, 1-5.	3.0	9
21	Hernia Mesh and Hernia Repair: A Review. <i>Engineered Regeneration</i> , 2020, 1, 19-33.	3.0	36
22	Orthopedic implants and devices for bone fractures and defects: Past, present and perspective. <i>Engineered Regeneration</i> , 2020, 1, 6-18.	3.0	70
23	Porous zinc scaffolds for bone tissue engineering applications: A novel additive manufacturing and casting approach. <i>Materials Science and Engineering C</i> , 2020, 110, 110738.	3.8	75
24	Alloying design of biodegradable zinc as promising bone implants for load-bearing applications. <i>Nature Communications</i> , 2020, 11, 401.	5.8	290
25	Controllable biodegradation and enhanced osseointegration of ZrO ₂ -nanofilm coated Zn-Li alloy: In vitro and in vivo studies. <i>Acta Biomaterialia</i> , 2020, 105, 290-303.	4.1	47
26	Bioactive Glasses in Orthopedic Applications. , 2020, , 557-575.		1
27	Recent Developments of Zn-based Medical Implants. , 2020, , 677-691.		0
28	Additive Manufacturing of Bioscaffolds for Bone Regeneration. , 2020, , 313-332.		0
29	Targeting of PP2C \hat{C} By a Small Molecule C23 Inhibits High Glucose-Induced Breast Cancer Progression <i>In Vivo</i>. <i>Antioxidants and Redox Signaling</i> , 2019, 30, 1983-1998.	2.5	12
30	miR-5195-3p Suppresses Cell Proliferation and Induces Apoptosis by Directly Targeting NEDD9 in Osteosarcoma. <i>Cancer Biotherapy and Radiopharmaceuticals</i> , 2019, 34, 405-412.	0.7	7
31	Challenges in the use of zinc and its alloys as biodegradable metals: Perspective from biomechanical compatibility. <i>Acta Biomaterialia</i> , 2019, 97, 23-45.	4.1	170
32	Magnesium Regulates Endothelial Barrier Functions through TRPM7, MagT1, and S1P1. <i>Advanced Science</i> , 2019, 6, 1901166.	5.6	44
33	PP2C \hat{C} inhibits p300-mediated p53 acetylation via ATM/BRCA1 pathway to impede DNA damage response in breast cancer. <i>Science Advances</i> , 2019, 5, eaaw8417.	4.7	13
34	Combined Tribological and Bactericidal Effect of Nanodiamonds as a Potential Lubricant for Artificial Joints. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 43500-43508.	4.0	30
35	Bioactive glass coatings on metallic implants for biomedical applications. <i>Bioactive Materials</i> , 2019, 4, 261-270.	8.6	130
36	Mechanical Strength, Biodegradation, and in Vitro and in Vivo Biocompatibility of Zn Biomaterials. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 6809-6819.	4.0	111

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37	Biofunctionalization of metallic implants by calcium phosphate coatings. <i>Bioactive Materials</i> , 2019, 4, 196-206.	8.6	173
38	Interfacial Zinc Phosphate is the Key to Controlling Biocompatibility of Metallic Zinc Implants. <i>Advanced Science</i> , 2019, 6, 1900112.	5.6	95
39	Enhanced cytocompatibility and antibacterial property of zinc phosphate coating on biodegradable zinc materials. <i>Acta Biomaterialia</i> , 2019, 98, 174-185.	4.1	148
40	Fundamental Theory of Biodegradable Metals—Definition, Criteria, and Design. <i>Advanced Functional Materials</i> , 2019, 29, 1805402.	7.8	226
41	Enhanced Osseointegration of Zn-Mg Composites by Tuning the Release of Zn Ions with Sacrificial Mg-Rich Anode Design. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 453-467.	2.6	70
42	Formation Mechanism, Corrosion Behavior, and Cytocompatibility of Microarc Oxidation Coating on Absorbable High-Purity Zinc. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 487-497.	2.6	52
43	Zinc-Based Biomaterials for Regeneration and Therapy. <i>Trends in Biotechnology</i> , 2019, 37, 428-441.	4.9	243
44	Magnesium Reduces Blood-Brain Barrier Permeability and Regulates Amyloid- β Transcytosis. <i>Molecular Neurobiology</i> , 2018, 55, 7118-7131.	1.9	47
45	In vitro and in vivo studies on zinc-hydroxyapatite composites as novel biodegradable metal matrix composite for orthopedic applications. <i>Acta Biomaterialia</i> , 2018, 71, 200-214.	4.1	197
46	Bioinspired surface functionalization of metallic biomaterials. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 77, 90-105.	1.5	146
47	EMuS Muon Facility and Its Application in the Study of Magnetism. <i>Quantum Beam Science</i> , 2018, 2, 23.	0.6	22
48	Hydroxyapatite/Titania Composite Coatings on Biodegradable Magnesium Alloy for Enhanced Corrosion Resistance, Cytocompatibility and Antibacterial Properties. <i>Journal of the Electrochemical Society</i> , 2018, 165, C962-C972.	1.3	38
49	Blood-Brain Barrier Integrity and Clearance of Amyloid- β from the BBB. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1097, 261-278.	0.8	36
50	Patchable micro/nanodevices interacting with skin. <i>Biosensors and Bioelectronics</i> , 2018, 122, 189-204.	5.3	47
51	The Influence of Oscillatory Fractions on Mass Transfer of Non-Newtonian Fluid in Wavy-Walled Tubes for Pulsatile Flow. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 317, 012005.	0.3	0
52	Design of imaging system for CSNS near-target beam diagnostics. <i>Radiation Detection Technology and Methods</i> , 2018, 2, 1.	0.4	2
53	Zinc regulates vascular endothelial cell activity through zinc-sensing receptor ZnR/GPR39. <i>American Journal of Physiology - Cell Physiology</i> , 2018, 314, C404-C414.	2.1	64
54	Evolution of the degradation mechanism of pure zinc stent in the one-year study of rabbit abdominal aorta model. <i>Biomaterials</i> , 2017, 145, 92-105.	5.7	257

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55	Biological Responses and Mechanisms of Human Bone Marrow Mesenchymal Stem Cells to Zn and Mg Biomaterials. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 27453-27461.	4.0	162
56	Development of Biodegradable Zn-Based Medical Implants. , 2017, , 311-329.		2
57	Calcium Phosphate Coatings for Metallic Orthopedic Biomaterials. , 2017, , 167-183.		3
58	Metabolic Syndrome, Inflammation, and Cancer. <i>Mediators of Inflammation</i> , 2017, 2017, 1-2.	1.4	4
59	Biphasic responses of human vascular smooth muscle cells to magnesium ion. <i>Journal of Biomedical Materials Research - Part A</i> , 2016, 104, 347-356.	2.1	68
60	Bioabsorbable zinc ion induced biphasic cellular responses in vascular smooth muscle cells. <i>Scientific Reports</i> , 2016, 6, 26661.	1.6	91
61	Bio-Adaption between Magnesium Alloy Stent and the Blood Vessel: A Review. <i>Journal of Materials Science and Technology</i> , 2016, 32, 815-826.	5.6	64
62	Role of membrane biophysics in Alzheimer's disease-related cell pathways. <i>Frontiers in Neuroscience</i> , 2015, 9, 186.	1.4	29
63	Central role for PICALM in amyloid- β^2 blood-brain barrier transcytosis and clearance. <i>Nature Neuroscience</i> , 2015, 18, 978-987.	7.1	334
64	Boundary-free skeleton extraction and its evaluation in sensor networks. <i>Wireless Networks</i> , 2015, 21, 269-280.	2.0	4
65	Endothelial Cellular Responses to Biodegradable Metal Zinc. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 1174-1182.	2.6	166
66	Sirolimus-eluting dextran and polyglutamic acid hybrid coatings on AZ31 for stent applications. <i>Journal of Biomaterials Applications</i> , 2015, 30, 579-588.	1.2	18
67	Endothelial responses of magnesium and other alloying elements in magnesium-based stent materials. <i>Metallomics</i> , 2015, 7, 118-128.	1.0	83
68	Collagen Self-Assembly on Orthopedic Magnesium Biomaterials Surface and Subsequent Bone Cell Attachment. <i>PLoS ONE</i> , 2014, 9, e110420.	1.1	31
69	In Vitro Biocompatibility and Endothelialization of Novel Magnesium-Rare Earth Alloys for Improved Stent Applications. <i>PLoS ONE</i> , 2014, 9, e98674.	1.1	29
70	Endothelialization of Novel Magnesium-Rare Earth Alloys with Fluoride and Collagen Coating. <i>International Journal of Molecular Sciences</i> , 2014, 15, 5263-5276.	1.8	31
71	Similarities and differences in coatings for magnesium-based stents and orthopaedic implants. <i>Journal of Orthopaedic Translation</i> , 2014, 2, 118-130.	1.9	45
72	The Extraction and Evaluation of Skeleton in Sensor Networks. , 2013, , .		4

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73	Application of Mg-based alloys for cardiovascular stents. <i>International Journal of Biomedical Engineering and Technology</i> , 2013, 12, 382.	0.2	16
74	Bioscaffolds development for small-diameter vascular grafts. <i>International Journal of Biomedical Engineering and Technology</i> , 2013, 12, 113.	0.2	8
75	Energy-dependence of vibrational relaxation between highly vibrationally excited KH ($X^{1}\Sigma^{+}$, $v=14$) and H ₂ , and N ₂ . <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2012, 96, 517-525.	2.0	6
76	Protein S controls hypoxic/ischemic blood-brain barrier disruption through the TAM receptor Tyro3 and sphingosine 1-phosphate receptor. <i>Blood</i> , 2010, 115, 4963-4972.	0.6	95
77	NAD(P)H oxidase-mediated reactive oxygen species production alters astrocyte membrane molecular order via phospholipase A2. <i>Biochemical Journal</i> , 2009, 421, 201-210.	1.7	39
78	Amyloid- β peptide induces temporal membrane biphasic changes in astrocytes through cytosolic phospholipase A2. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2008, 1778, 2512-2519.	1.4	34
79	Mathematical modeling of blood coagulation cascade: kinetics of intrinsic and extrinsic pathways in normal and deficient conditions. <i>Blood Coagulation and Fibrinolysis</i> , 2007, 18, 637-646.	0.5	20
80	Application of Molecular Rotors to the Determination of the Molecular Weight Dependence of Viscosity in Polymer Melts. <i>Macromolecules</i> , 2007, 40, 7730-7732.	2.2	35
81	Brownian Diffusion and Surface Kinetics of Liposome and Viral Particle Uptake by Human Lung Cancer Cells In-Vitro. <i>Annals of Biomedical Engineering</i> , 2006, 34, 1573-1586.	1.3	7
82	Phospholipases A2 Mediate Amyloid-beta Peptide-Induced Mitochondrial Dysfunction. <i>Journal of Neuroscience</i> , 2006, 26, 11111-11119.	1.7	109
83	Hydrogen peroxide alters membrane and cytoskeleton properties and increases intercellular connections in astrocytes. <i>Journal of Cell Science</i> , 2005, 118, 3695-3703.	1.2	216
84	General Synthesis of Thioxo-1,8-naphthalimides via Thioxo-1,8-naphthalic Anhydrides. <i>Synthesis</i> , 1999, 1999, 1109-1111.	1.2	8
85	A comparative study of in vitro biocompatibility of Zn and AZ31 for cardiovascular stent application. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 4, .	2.0	0