

Hyung-Seop Han

List of Publications by Year in descending order

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43
papers

1,838
citations

430442

18
h-index

264894

42
g-index

45
all docs

45
docs citations

45
times ranked

2763
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving hydroxyapatite coating ability on biodegradable metal through laser-induced hydrothermal coating in liquid precursor: Application in orthopedic implants. <i>Bioactive Materials</i> , 2023, 25, 796-806.	8.6	10
2	Computational design of Mg alloys with minimal galvanic corrosion. <i>Journal of Magnesium and Alloys</i> , 2022, 10, 1972-1980.	5.5	15
3	Synergistic stimulation of surface topography and biphasic electric current promotes muscle regeneration. <i>Bioactive Materials</i> , 2022, 11, 118-129.	8.6	5
4	On/off switchable physical stimuli regulate the future direction of adherent cellular fate. <i>Journal of Materials Chemistry B</i> , 2021, 9, 5560-5571.	2.9	3
5	Femtosecond laser-mediated anchoring of polymer layers on the surface of a biodegradable metal. <i>Journal of Magnesium and Alloys</i> , 2021, 9, 1373-1373.	5.5	11
6	Regulation of cell locomotion by nanosecond-laser-induced hydroxyapatite patterning. <i>Bioactive Materials</i> , 2021, 6, 3608-3619.	8.6	17
7	Conformable microneedle pH sensors via the integration of two different siloxane polymers for mapping peripheral artery disease. <i>Science Advances</i> , 2021, 7, eabi6290.	4.7	36
8	Robust Hydroxyapatite Coating by Laser-Induced Hydrothermal Synthesis. <i>Advanced Functional Materials</i> , 2020, 30, 2005233.	7.8	29
9	Biodegradable Magnesium Alloys Promote Angiogenesis to Enhance Bone Repair. <i>Advanced Science</i> , 2020, 7, 2000800.	5.6	72
10	Tailoring H ₂ O ₂ generation kinetics with magnesium alloys for efficient disinfection on titanium surface. <i>Scientific Reports</i> , 2020, 10, 6536.	1.6	4
11	Current status and outlook on the clinical translation of biodegradable metals. <i>Materials Today</i> , 2019, 23, 57-71.	8.3	271
12	Interface Engineering of Fully Metallic Stents Enabling Controllable H ₂ O ₂ Generation for Antirestenosis. <i>Langmuir</i> , 2019, 35, 3634-3642.	1.6	6
13	Corrosion behavior of biodegradable Mg-based alloys via femtosecond laser surface melting. <i>Applied Surface Science</i> , 2018, 448, 424-434.	3.1	60
14	Effect of spatial arrangement and structure of hierarchically patterned fibrous scaffolds generated by a femtosecond laser on cardiomyoblast behavior. <i>Journal of Biomedical Materials Research - Part A</i> , 2018, 106, 1732-1742.	2.1	5
15	A new corrosion-inhibiting strategy for biodegradable magnesium: reduced nicotinamide adenine dinucleotide (NADH). <i>Scientific Reports</i> , 2018, 8, 17743.	1.6	6
16	Detection of Acidic Pharmaceutical Compounds Using Virus-Based Molecularly Imprinted Polymers. <i>Polymers</i> , 2018, 10, 974.	2.0	9
17	Transgenic zebrafish model for quantification and visualization of tissue toxicity caused by alloying elements in newly developed biodegradable metal. <i>Scientific Reports</i> , 2018, 8, 13818.	1.6	7
18	Electrospun Fibrous Scaffolds for Tissue Engineering: Viewpoints on Architecture and Fabrication. <i>International Journal of Molecular Sciences</i> , 2018, 19, 745.	1.8	327

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19	Comprehensive study on the roles of released ions from biodegradable Mg-5Åwt% Ca-1Åwt% Zn alloy in bone regeneration. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017, 11, 2710-2724.	1.3	33
20	Stability of biodegradable metal (Mg&Ca&Zn alloy) screws compared with absorbable polymer and titanium screws for sagittal split ramus osteotomy of the mandible using the finite element analysis model. <i>Journal of Cranio-Maxillo-Facial Surgery</i> , 2017, 45, 1639-1646.	0.7	19
21	Mussel Adhesion&Inspired Reverse Transfection Platform Enhances Osteogenic Differentiation and Bone Formation of Human Adipose&Derived Stem Cells. <i>Small</i> , 2016, 12, 6266-6278.	5.2	25
22	Finite element analysis of newly developed endosseous root-form dental implant utilizing biodegradable magnesium alloy. , 2016, , .		1
23	Ultrathin Metal Films with Defined Topographical Structures as In Vitro Cell Culture Platforms for Unveiling Vascular Cell Behaviors. <i>Advanced Healthcare Materials</i> , 2016, 5, 2396-2405.	3.9	11
24	Creating Hierarchical Topographies on Fibrous Platforms Using Femtosecond Laser Ablation for Directing Myoblasts Behavior. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 3407-3417.	4.0	42
25	Long-term clinical study and multiscale analysis of in vivo biodegradation mechanism of Mg alloy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 716-721.	3.3	337
26	Reassessing the atomic size effect on glass forming ability: Effect of atomic size difference on thermodynamics and kinetics. <i>Intermetallics</i> , 2016, 69, 123-127.	1.8	3
27	Direct and accurate measurement of size dependent wetting behaviors for sessile water droplets. <i>Scientific Reports</i> , 2015, 5, 18150.	1.6	27
28	Magnesium Corrosion Triggered Spontaneous Generation of H ₂ O ₂ on Oxidized Titanium for Promoting Angiogenesis. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 14753-14757.	7.2	22
29	Reduction of initial corrosion rate and improvement of cell adhesion through surface modification of biodegradable Mg alloy. <i>Metals and Materials International</i> , 2015, 21, 194-201.	1.8	6
30	<i>In vitro</i> dynamic degradation behavior of new magnesium alloy for orthopedic applications. , 2015, 103, 807-815.		18
31	Evaluation of porous β -calcium pyrophosphate as bioresorbable bone graft substitute material. <i>Materials Research Innovations</i> , 2015, 19, 86-90.	1.0	5
32	Conventional and improved cytotoxicity test methods of newly developed biodegradable magnesium alloys. <i>Metals and Materials International</i> , 2015, 21, 1108-1117.	1.8	10
33	Microdevices for examining immunological responses of single cells to HIV. <i>Bioscience Reports</i> , 2014, 34, .	1.1	4
34	Electrochemical Synthesis of Red Fluorescent Silicon Nanoparticles. <i>Bulletin of the Korean Chemical Society</i> , 2014, 35, 35-38.	1.0	9
35	The modification of microstructure to improve the biodegradation and mechanical properties of a biodegradable Mg alloy. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 20, 54-60.	1.5	28
36	Multifunctional Composite Coating as a Wear-Resistant Layer for the Bearing in Total Hip Joint Replacement. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 395-403.	4.0	21

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37	Facile Solvothermal Preparation of Monodisperse Gold Nanoparticles and Their Engineered Assembly of Ferritinâ€“Gold Nanoclusters. <i>Langmuir</i> , 2013, 29, 15698-15703.	1.6	35
38	Biodegradability engineering of biodegradable Mg alloys: Tailoring the electrochemical properties and microstructure of constituent phases. <i>Scientific Reports</i> , 2013, 3, 2367.	1.6	160
39	Effect of surface area on corrosion properties of magnesium for biomaterials. <i>Metals and Materials International</i> , 2013, 19, 1131-1137.	1.8	14
40	Rapid In Vitro Corrosion Induced by Crack-Like Pathway in Biodegradable Mgâ€“10% Ca Alloy. <i>Microscopy and Microanalysis</i> , 2013, 19, 210-214.	0.2	1
41	<i>In vivo</i> corrosion mechanism by elemental interdiffusion of biodegradable Mgâ€“Ca alloy. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2012, 100B, 2251-2260.	1.6	21
42	Preferred crystallographic pitting corrosion of pure magnesium in Hanksâ€™ solution. <i>Corrosion Science</i> , 2012, 63, 316-322.	3.0	78
43	Bone formation within the vicinity of biodegradable magnesium alloy implant in a rat femur model. <i>Metals and Materials International</i> , 2012, 18, 243-247.	1.8	12