Xiao Yang

List of Publications by Year
in descending order

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Version: 2024-02-01

		172457	206112
70	2,635	29	48
papers	citations	h-index	g-index

70	70	70	3390
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Application of hydroxyapatite nanoparticles in tumor-associated bone segmental defect. Science Advances, 2019, 5, eaax6946.	10.3	175
2	Comparison of osteointegration property between PEKK and PEEK: Effects of surface structure and chemistry. Biomaterials, 2018, 170, 116-126.	11.4	141
3	Bone regeneration with micro/nano hybrid-structured biphasic calcium phosphate bioceramics at segmental bone defect and the induced immunoregulation of MSCs. Biomaterials, 2017, 147, 133-144.	11.4	134
4	Microfabricated perfusable cardiac biowire: a platform that mimics native cardiac bundle. Lab on A Chip, 2014, 14, 869-882.	6.0	121
5	Diabetic wound regeneration using peptide-modified hydrogels to target re-epithelialization. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5792-E5801.	7.1	108
6	Viscoelasticity in natural tissues and engineered scaffolds for tissue reconstruction. Acta Biomaterialia, 2019, 97, 74-92.	8.3	88
7	Role of biphasic calcium phosphate ceramic-mediated secretion of signaling molecules by macrophages in migration and osteoblastic differentiation of MSCs. Acta Biomaterialia, 2017, 51, 447-460.	8.3	76
8	A biomimetically hierarchical polyetherketoneketone scaffold for osteoporotic bone repair. Science Advances, 2020, 6, .	10.3	73
9	Cellulose Nanocrystal Reinforced Collagen-Based Nanocomposite Hydrogel with Self-Healing and Stress-Relaxation Properties for Cell Delivery. Biomacromolecules, 2020, 21, 2400-2408.	5.4	73
10	Accelerated Bone Regeneration by MOF Modified Multifunctional Membranes through Enhancement of Osteogenic and Angiogenic Performance. Advanced Healthcare Materials, 2021, 10, e2001369.	7.6	67
11	Nano-Hydroxyapatite Coating Promotes Porous Calcium Phosphate Ceramic-Induced Osteogenesis Via BMP/Smad Signaling Pathway . International Journal of Nanomedicine, 2019, Volume 14, 7987-8000.	6.7	65
12	Roles of calcium phosphate-mediated integrin expression and MAPK signaling pathways in the osteoblastic differentiation of mesenchymal stem cells. Journal of Materials Chemistry B, 2016, 4, 2280-2289.	5.8	62
13	Osteoinductivity of Porous Biphasic Calcium Phosphate Ceramic Spheres with Nanocrystalline and Their Efficacy in Guiding Bone Regeneration. ACS Applied Materials & Interfaces, 2019, 11, 3722-3736.	8.0	62
14	Recent developments and applications of bioinspired dendritic polymers. Polymer Chemistry, 2015, 6, 668-680.	3.9	61
15	Stereolithography-Based Additive Manufacturing of High-Performance Osteoinductive Calcium Phosphate Ceramics by a Digital Light-Processing System. ACS Biomaterials Science and Engineering, 2020, 6, 1787-1797.	5.2	60
16	A bioceramic scaffold composed of strontium-doped three-dimensional hydroxyapatite whiskers for enhanced bone regeneration in osteoporotic defects. Theranostics, 2020, 10, 1572-1589.	10.0	58
17	Selective effect of hydroxyapatite nanoparticles on osteoporotic and healthy bone formation correlates with intracellular calcium homeostasis regulation. Acta Biomaterialia, 2017, 59, 338-350.	8.3	53
18	Comparison of ectopic bone formation process induced by four calcium phosphate ceramics in mice. Materials Science and Engineering C, 2017, 70, 1000-1010.	7.3	51

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19	Effective dentin restorative material based on phosphate-terminated dendrimer as artificial protein. Colloids and Surfaces B: Biointerfaces, 2015, 128, 304-314.	5.0	46
20	Antibacterial and anti-biofouling coating on hydroxyapatite surface based on peptide-modified tannic acid. Colloids and Surfaces B: Biointerfaces, 2017, 160, 136-143.	5.0	45
21	Processing and Properties of Bioactive Surface-Porous PEKK. ACS Biomaterials Science and Engineering, 2016, 2, 977-986.	5.2	44
22	Regulation of the secretion of immunoregulatory factors of mesenchymal stem cells (MSCs) by collagen-based scaffolds during chondrogenesis. Materials Science and Engineering C, 2017, 70, 983-991.	7.3	44
23	Antibacterial and biodegradable tissue nano-adhesives for rapid wound closure. International Journal of Nanomedicine, 2018, Volume 13, 5849-5863.	6.7	43
24	A Universal and Ultrastable Mineralization Coating Bioinspired from Biofilms. Advanced Functional Materials, 2018, 28, 1802730.	14.9	43
25	Construction of a magnesium hydroxide/graphene oxide/hydroxyapatite composite coating on Mgâ€“Caâ€“Znâ€“Ag alloy to inhibit bacterial infection and promote bone regeneration. Bioactive Materials, 2022, 18, 354-367.	15.6	43
26	Healing of osteoporotic bone defects by micro-/nano-structured calcium phosphate bioceramics. Nanoscale, 2019, 11, 2721-2732.	5.6	38
27	Construction of surface HA/TiO2 coating on porous titanium scaffolds and its preliminary biological evaluation. Materials Science and Engineering C, 2017, 70, 1047-1056.	7.3	31
28	Bio-inspired peptide decorated dendrimers for a robust antibacterial coating on hydroxyapatite. Polymer Chemistry, 2017, 8, 4264-4279.	3.9	31
29	Effects of Nanotopography Regulation and Silicon Doping on Angiogenic and Osteogenic Activities of Hydroxyapatite Coating on Titanium Implant . International Journal of Nanomedicine, 2020, Volume 15, 4171-4189.	6.7	31
30	Biochemical and Biophysical Cues in Matrix Design for Chronic and Diabetic Wound Treatment. Tissue Engineering - Part B: Reviews, 2017, 23, 9-26.	4.8	30
31	Regulation of surface micro/nano structure and composition of polyetheretherketone and their influence on the behavior of MC3T3-E1 pre-osteoblasts. Journal of Materials Chemistry B, 2019, 7, 5713-5724.	5.8	30
32	Injectable strontium-doped hydroxyapatite integrated with phosphoserine-tethered poly(epsilon-lysine) dendrons for osteoporotic bone defect repair. Journal of Materials Chemistry B, 2018, 6, 7974-7984.	5.8	29
33	The in vitro and in vivo anti-melanoma effects of hydroxyapatite nanoparticles: influences of material factors . International Journal of Nanomedicine, 2019, Volume 14, 1177-1191.	6.7	29
34	Ibandronate does not reduce the anabolic effects of PTH in ovariectomized rat tibiae: A microarchitectural and mechanical study. Bone, 2011, 48, 1154-1163.	2.9	26
35	Positive alterations of viscoelastic and geometric properties in ovariectomized rat femurs with concurrent administration of ibandronate and PTH. Bone, 2013, 52, 308-317.	2.9	26
36	Modifications of collagen-based biomaterials with immobilized growth factors or peptides. Methods, 2015, 84, 44-52.	3.8	26

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37	The morphological effect of nanostructured hydroxyapatite coatings on the osteoinduction and osteogenic capacity of porous titanium. Nanoscale, 2020, 12, 24085-24099.	5.6	26
38	Bioinspired from Salivary Acquired Pellicle: A Multifunctional Coating for Biominerals. Chemistry of Materials, 2017, 29, 5663-5670.	6.7	25
39	Bioinspired Peptide-Decorated Tannic Acid for in Situ Remineralization of Tooth Enamel: In Vitro and in Vivo Evaluation. ACS Biomaterials Science and Engineering, 2017, 3, 3553-3562.	5.2	24
40	Fabrication and preliminary biological evaluation of a highly porous biphasic calcium phosphate scaffold with nano-hydroxyapatite surface coating. Ceramics International, 2018, 44, 1304-1311.	4.8	23
41	Bone mineral density, microarchitectural and mechanical alterations of osteoporotic rat bone under long-term whole-body vibration therapy. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 53, 341-349.	3.1	22
42	The directional migration and differentiation of mesenchymal stem cells toward vascular endothelial cells stimulated by biphasic calcium phosphate ceramic. International Journal of Energy Production and Management, 2018, 5, 129-139.	3.7	19
43	Mineralized collagen-modified PMMA cement enhances bone integration and reduces fibrous encapsulation in the treatment of lumbar degenerative disc disease. International Journal of Energy Production and Management, 2020, 7, 181-193.	3.7	19
44	Machine learning on properties of multiscale multisource hydroxyapatite nanoparticles datasets with different morphologies and sizes. Npj Computational Materials, 2021, 7, .	8.7	19
45	Role of N-Cadherin in a Niche-Mimicking Microenvironment for Chondrogenesis of Mesenchymal Stem Cells In Vitro. ACS Biomaterials Science and Engineering, 2020, 6, 3491-3501.	5.2	18
46	Administration of PTH and ibandronate increases ovariectomized rat compact bone viscoelasticity. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 22, 51-58.	3.1	17
47	A bioactive polymethylmethacrylate bone cement for prosthesis fixation in osteoporotic hip replacement surgery. Materials and Design, 2021, 209, 109966.	7.0	17
48	Osteoporotic bone recovery by a bamboo-structured bioceramic with controlled release of hydroxyapatite nanoparticles. Bioactive Materials, 2022, 17, 379-393.	15.6	17
49	The positive role of macrophage secretion stimulated by BCP ceramic in the ceramic-induced osteogenic differentiation of pre-osteoblasts via Smad-related signaling pathways. RSC Advances, 2016, 6, 102134-102141.	3.6	16
50	Thermal degradation behavior and probable mechanism of aromatic poly(1,3,4-oxadiazole)s fibers. Polymer Bulletin, 2015, 72, 1067-1080.	3.3	15
51	Effective in situ repair and bacteriostatic material of tooth enamel based on salivary acquired pellicle inspired oligomeric procyanidins. Polymer Chemistry, 2016, 7, 6761-6769.	3.9	15
52	Administration duration influences the effects of lowâ€magnitude, highâ€frequency vibration on ovariectomized rat bone. Journal of Orthopaedic Research, 2016, 34, 1147-1157.	2.3	15
53	A systematic assessment of hydroxyapatite nanoparticles used in the treatment of melanoma. Nano Research, 2020, 13, 2106-2117.	10.4	15
54	Heterostructured Metalâ€“Organic Frameworks/Polydopamine Coating Endows Polyetheretherketone Implants with Multimodal Osteogenicity and Photoswitchable Disinfection. Advanced Healthcare Materials, 2022, 11, e2200641.	7.6	15

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55	The optimized preparation of HA/L-TiO2/D-TiO2 composite coating on porous titanium and its effect on the behavior osteoblasts. International Journal of Energy Production and Management, 2020, 7, 505-514.	3.7	14
56	Complexation of Injectable Biphasic Calcium Phosphate with Phosphoserine-Presenting Dendrons with Enhanced Osteoregenerative Properties. ACS Applied Materials & Interfaces, 2020, 12, 37873-37884.	8.0	13
57	The Morphology of Hydroxyapatite Nanoparticles Regulates Cargo Recognition in Clathrin-Mediated Endocytosis. Frontiers in Molecular Biosciences, 2021, 8, 627015.	3.5	13
58	Positive role of calcium phosphate ceramics regulated inflammation in the osteogenic differentiation of mesenchymal stem cells. Journal of Biomedical Materials Research - Part A, 2020, 108, 1305-1320.	4.0	11
59	Bioactive scaffolds based on collagen filaments with tunable physico-chemical and biological features. Soft Matter, 2020, 16, 4540-4548.	2.7	10
60	A multi-level comparative analysis of human femoral cortical bone quality in healthy cadavers and surgical safe margin of osteosarcoma patients. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 66, 111-118.	3.1	9
61	Role of Na+, K+-ATPase ion pump in osteoinduction. Acta Biomaterialia, 2021, 129, 293-308.	8.3	9
62	A sonication-induced silk-collagen hydrogel for functional cartilage regeneration. Journal of Materials Chemistry B, 2022, 10, 5045-5057.	5.8	9
63	Progress in Preparation of Silk Fibroin Microspheres for Biomedical Applications. Pharmaceutical Nanotechnology, 2020, 8, 358-371.	1.5	8
64	Immunization with Na+/K+ ATPase DR peptide prevents bone loss in an ovariectomized rat osteoporosis model. Biochemical Pharmacology, 2018, 156, 281-290.	4.4	7
65	The morphology of hydroxyapatite nanoparticles regulates clathrin-mediated endocytosis in melanoma cells and resultant anti-tumor efficiency. Nano Research, 2022, 15, 6256-6265.	10.4	7
66	Self-reduction and morphology control of gold nanoparticles by dendronized poly(amido amine)s for photothermal therapy. RSC Advances, 2014, 4, 44872-44878.	3.6	6
67	Effect of process parameters on the microstructure and property of hydroxyapatite precursor powders and resultant sintered bodies. International Journal of Applied Ceramic Technology, 2019, 16, 444-454.	2.1	6
68	Application of osteoinductive calcium phosphate ceramics in childrenâ€™s endoscopic neurosurgery: report of five cases. International Journal of Energy Production and Management, 2018, 5, 221-227.	3.7	5
69	Ability of a novel biomimetic titanium alloy cage in avoiding subsidence and promoting fusion: a goat spine model study. Materials and Design, 2022, 213, 110361.	7.0	5
70	Improvement of Oxidation Resistance of Remelted Zone in an Al2O3-Forming Austenitic Stainless Steel by Annealing. Oxidation of Metals, 2015, 83, 273-290.	2.1	3