Xiangdong Zhu

List of Publications by Year in Descending Order

66 papers	1,300 citations	23 h-index	34 g-index
76 ext. papers	1,798 ext. citations	7.6 avg, IF	4.52 L-index

#	Paper	IF	Citations
66	Osteoporotic bone recovery by a bamboo-structured bioceramic with controlled release of hydroxyapatite nanoparticles.. *Bioactive Materials*, **2022**, 17, 379-393	16.7	1
65	The biological effect of recombinant humanized collagen on damaged skin induced by UV-photoaging: An study.. *Bioactive Materials*, **2022**, 11, 154-165	16.7	2
64	Enhanced bone regenerative properties of calcium phosphate ceramic granules in rabbit posterolateral spinal fusion through a reduction of grain size.. *Bioactive Materials*, **2022**, 11, 90-106	16.7	0
63	Optimal regenerative repair of large segmental bone defect in a goat model with osteoinductive calcium phosphate bioceramic implants.. *Bioactive Materials*, **2022**, 11, 240-253	16.7	6
62	Comparative studies on micromechanical properties and biological performances in hydroxyapatite ceramics with micro/nanocrystalline. *Journal of the American Ceramic Society*, **2022**, 105, 742	3.8	2
61	Construction of a magnesium hydroxide/graphene oxide/hydroxyapatite composite coating on Mg-Ca-Zn-Ag alloy to inhibit bacterial infection and promote bone regeneration.. *Bioactive Materials*, **2022**, 18, 354-367	16.7	2
60	Application of osteoinductive calcium phosphate ceramics in giant cell tumor of the sacrum: report of six cases.. *International Journal of Energy Production and Management*, **2022**, 9, rbac017	5.3	0
59	Strontium combined with bioceramics for osteoporotic bone repair: Oral intake or as a dopant?. *Applied Materials Today*, **2021**, 22, 100927	6.6	4
58	The Morphology of Hydroxyapatite Nanoparticles Regulates Cargo Recognition in Clathrin-Mediated Endocytosis. *Frontiers in Molecular Biosciences*, **2021**, 8, 627015	5.6	2
57	Evaluation on the corrosion resistance, antibacterial property and osteogenic activity of biodegradable Mg-Ca and Mg-Ca-Zn-Ag alloys. *Journal of Magnesium and Alloys*, **2021**,	8.8	5
56	Role of Na, K-ATPase ion pump in osteoinduction. *Acta Biomaterialia*, **2021**, 129, 293-308	10.8	4
55	The role of micro-vibration parameters in inflammatory responses of macrophages cultured on biphasic calcium phosphate ceramics and the resultant influence on osteogenic differentiation of mesenchymal stem cells. *Journal of Materials Chemistry B*, **2021**, 9, 8003-8013	7.3	1
54	Effect of Hydrothermal Media on the in-situ Whisker Growth on Biphasic Calcium Phosphate Ceramics. *International Journal of Nanomedicine*, **2021**, 16, 147-159	7.3	5
53	Exposure to hydroxyapatite nanoparticles enhances Toll-like receptor 4 signal transduction and overcomes endotoxin tolerance in vitro and in vivo. *Acta Biomaterialia*, **2021**, 135, 650-662	10.8	2
52	Machine learning on properties of multiscale multisource hydroxyapatite nanoparticles datasets with different morphologies and sizes. *Npj Computational Materials*, **2021**, 7,	10.9	4
51	Application of femtosecond laser microfabrication in the preparation of advanced bioactive titanium surfaces. *Journal of Materials Chemistry B*, **2021**, 9, 3912-3924	7.3	4
50	Enhanced osteogenic activity and antibacterial performance of polyetheretherketone by plasma-induced graft polymerization of acrylic acid and incorporation of zinc ions. *Journal of Materials Chemistry B*, **2021**, 9, 7506-7515	7.3	1

49	A biomimetically hierarchical polyetherketoneketone scaffold for osteoporotic bone repair. *Science Advances*, **2020**, 6,	14.3	24
48	A systematic assessment of hydroxyapatite nanoparticles used in the treatment of melanoma. *Nano Research*, **2020**, 13, 2106-2117	10	9
47	The optimized preparation of HA/L-TiO/D-TiO composite coating on porous titanium and its effect on the behavior osteoblasts. *International Journal of Energy Production and Management*, **2020**, 7, 505-514	5.3	7
46	Effects of Nanotopography Regulation and Silicon Doping on Angiogenic and Osteogenic Activities of Hydroxyapatite Coating on Titanium Implant. *International Journal of Nanomedicine*, **2020**, 15, 4171-4189	7.3	11
45	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	5.5	24
44	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	5.4	6
43	Bioactive scaffolds based on collagen filaments with tunable physico-chemical and biological features. *Soft Matter*, **2020**, 16, 4540-4548	3.6	5
42	A bioceramic scaffold composed of strontium-doped three-dimensional hydroxyapatite whiskers for enhanced bone regeneration in osteoporotic defects. *Theranostics*, **2020**, 10, 1572-1589	12.1	36
41	Complexation of Injectable Biphasic Calcium Phosphate with Phosphoserine-Presenting Dendrons with Enhanced Osteoregenerative Properties. *ACS Applied Materials & Interfaces*, **2020**, 12, 37873-37884	9.5	6
40	The morphological effect of nanostructured hydroxyapatite coatings on the osteoinduction and osteogenic capacity of porous titanium. *Nanoscale*, **2020**, 12, 24085-24099	7.7	10
39	Electrochemical Deposition of Nanostructured Hydroxyapatite Coating on Titanium with Enhanced Early Stage Osteogenic Activity and Osseointegration. *International Journal of Nanomedicine*, **2020**, 15, 6605-6618	7.3	15
38	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	7.3	16
37	Healing of osteoporotic bone defects by micro-/nano-structured calcium phosphate bioceramics. *Nanoscale*, **2019**, 11, 2721-2732	7.7	25
36	Effect of surface microstructure on the anti-fibrosis/adhesion of hydroxyapatite ceramics in spinal repair of rabbits. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2019**, 107, 2629-2637	3.5	2
35	Evaluation and regulation of the corrosion resistance of macroporous titanium scaffolds with bioactive surface films for biomedical applications. *Journal of Materials Chemistry B*, **2019**, 7, 3455-3467	7.3	9
34	The in vitro and in vivo anti-melanoma effects of hydroxyapatite nanoparticles: influences of material factors. *International Journal of Nanomedicine*, **2019**, 14, 1177-1191	7.3	12
33	Application of hydroxyapatite nanoparticles in tumor-associated bone segmental defect. *Science Advances*, **2019**, 5, eaax6946	14.3	81
32	Viscoelasticity in natural tissues and engineered scaffolds for tissue reconstruction. *Acta Biomaterialia*, **2019**, 97, 74-92	10.8	45

31	Nano-Hydroxyapatite Coating Promotes Porous Calcium Phosphate Ceramic-Induced Osteogenesis Via BMP/Smad Signaling Pathway. *International Journal of Nanomedicine*, **2019**, 14, 7987-8000	7.3	30
30	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	4
29	Comparison of osteointegration property between PEKK and PEEK: Effects of surface structure and chemistry. *Biomaterials*, **2018**, 170, 116-126	15.6	86
28	Study on an injectable biomedical paste using cross-linked sodium hyaluronate as a carrier of hydroxyapatite particles. *Carbohydrate Polymers*, **2018**, 195, 378-386	10.3	7
27	Application of osteoinductive calcium phosphate ceramics in children's endoscopic neurosurgery: report of five cases. *International Journal of Energy Production and Management*, **2018**, 5, 221-227	5.3	3
26	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	5.3	11
25	Promoting proliferation and differentiation of BMSCs by green tea polyphenols functionalized porous calcium phosphate. *International Journal of Energy Production and Management*, **2018**, 5, 35-41	5.3	13
24	Calcium phosphate altered the cytokine secretion of macrophages and influenced the homing of mesenchymal stem cells. *Journal of Materials Chemistry B*, **2018**, 6, 4765-4774	7.3	23
23	Fabrication and preliminary biological evaluation of a highly porous biphasic calcium phosphate scaffold with nano-hydroxyapatite surface coating. *Ceramics International*, **2018**, 44, 1304-1311	5.1	15
22	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	7.3	23
21	A serum protein adsorption profile on BCP ceramics and influence of the elevated adsorption of adhesive proteins on the behaviour of MSCs. *Journal of Materials Chemistry B*, **2018**, 6, 7383-7395	7.3	11
20	Construction of surface HA/TiO coating on porous titanium scaffolds and its preliminary biological evaluation. *Materials Science and Engineering C*, **2017**, 70, 1047-1056	8.3	25
19	An improved polymeric sponge replication method for biomedical porous titanium scaffolds. *Materials Science and Engineering C*, **2017**, 70, 1192-1199	8.3	48
18	Comparison of ectopic bone formation process induced by four calcium phosphate ceramics in mice. *Materials Science and Engineering C*, **2017**, 70, 1000-1010	8.3	40
17	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	10.8	51
16	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	15.6	103
15	Selective effect of hydroxyapatite nanoparticles on osteoporotic and healthy bone formation correlates with intracellular calcium homeostasis regulation. *Acta Biomaterialia*, **2017**, 59, 338-350	10.8	37
14	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	4.1	8

13	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	4.1	17
12	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	3.7	11
11	Administration duration influences the effects of low-magnitude, high-frequency vibration on ovariectomized rat bone. *Journal of Orthopaedic Research*, **2016**, 34, 1147-57	3.8	12
10	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	7.3	48
9	Processing and Properties of Bioactive Surface-Porous PEKK. *ACS Biomaterials Science and Engineering*, **2016**, 2, 977-986	5.5	38
8	Fabrication of porous titanium scaffolds by stack sintering of microporous titanium spheres produced with centrifugal granulation technology. *Materials Science and Engineering C*, **2014**, 43, 182-8	8.3	38
7	Fabrication and characterization of porous 3D whisker-covered calcium phosphate scaffolds. *Materials Letters*, **2014**, 128, 179-182	3.3	24
6	Effect of phase composition on protein adsorption and osteoinduction of porous calcium phosphate ceramics in mice. *Journal of Biomedical Materials Research - Part A*, **2014**, 102, 4234-43	5.4	49
5	Adsorption and Release Behaviors of Vascular Endothelial Growth Factor on Porous Hydroxyapatite Ceramic Under Competitive Conditions. *Journal of Biomaterials and Tissue Engineering*, **2014**, 4, 155-161	0.3	14
4	Dynamic competitive adsorption of bone-related proteins on calcium phosphate ceramic particles with different phase composition and microstructure. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2013**, 101, 1069-77	3.5	31
3	Osteoinduction of porous titanium: a comparative study between acid-alkali and chemical-thermal treatments. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2010**, 95, 387-96	3.5	39
2	Protein adsorption and zeta potentials of a biphasic calcium phosphate ceramic under various conditions. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2007**, 82, 65-73	3.5	48
1	The morphology of hydroxyapatite nanoparticles regulates clathrin-mediated endocytosis in melanoma cells and resultant anti-tumor efficiency. *Nano Research*,1	10	0