Jiang Chang

List of Publications by Year
in descending order

259 papers	24,032 citations	2963 93 h-index	9553 142 g-index
268 all docs	268 docs citations	268 times ranked	17185 citing authors

#	Article	IF	Citations
1	Copper-containing mesoporous bioactive glass scaffolds with multifunctional properties of angiogenesis capacity, osteostimulation and antibacterial activity. Biomaterials, 2013, 34, 422-433.	5.7	679
2	Osteoimmunomodulation for the development of advanced bone biomaterials. Materials Today, 2016, 19, 304-321.	8.3	513
3	Electrospun nanofibrous materials for tissue engineering and drug delivery. Science and Technology of Advanced Materials, 2010, 11, 014108.	2.8	410
4	Hypoxia-mimicking mesoporous bioactive glass scaffolds with controllable cobalt ion release for bone tissue engineering. Biomaterials, 2012, 33, 2076-2085.	5.7	393
5	Reconstruction of calvarial defect of rabbits using porous calcium silicate bioactive ceramics. Biomaterials, 2008, 29, 2588-2596.	5.7	388
6	3D-printed bioceramic scaffolds: From bone tissue engineering to tumor therapy. Acta Biomaterialia, 2018, 79, 37-59.	4.1	372
7	Advances in synthesis of calcium phosphate crystals with controlled size and shape. Acta Biomaterialia, 2014, 10, 4071-4102.	4.1	347
8	Enhanced osteoporotic bone regeneration by strontium-substituted calcium silicate bioactive ceramics. Biomaterials, 2013, 34, 10028-10042.	5.7	311
9	Multifunctional mesoporous bioactive glasses for effective delivery of therapeutic ions and drug/growth factors. Journal of Controlled Release, 2014, 193, 282-295.	4.8	306
10	Proliferation and osteoblastic differentiation of human bone marrow-derived stromal cells on akermanite-bioactive ceramics. Biomaterials, 2006, 27, 5651-5657.	5.7	293
11	In vitro and in vivo evaluation of akermanite bioceramics for bone regeneration. Biomaterials, 2009, 30, 5041-5048.	5.7	292
12	Mesoporous bioactive glasses: structure characteristics, drug/growth factor delivery and bone regeneration application. Interface Focus, 2012, 2, 292-306.	1.5	276
13	Degradation, bioactivity, and cytocompatibility of diopside, akermanite, and bredigite ceramics. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2007, 83B, 153-160.	1.6	254
14	Preparation of copper-containing bioactive glass/eggshell membrane nanocomposites for improving angiogenesis, antibacterial activity and wound healing. Acta Biomaterialia, 2016, 36, 254-266.	4.1	250
15	The self-setting properties and in vitro bioactivity of tricalcium silicate. Biomaterials, 2005, 26, 6113-6121.	5.7	249
16	A review of bioactive silicate ceramics. Biomedical Materials (Bristol), 2013, 8, 032001.	1.7	248
17	Osteogenesis and angiogenesis induced by porous Î²-CaSiO3/PDLGA composite scaffold via activation of AMPK/ERK1/2 and PI3K/Akt pathways. Biomaterials, 2013, 34, 64-77.	5.7	245
18	Silicate bioceramics induce angiogenesis during bone regeneration. Acta Biomaterialia, 2012, 8, 341-349.	4.1	240

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19	A Bifunctional Biomaterial with Photothermal Effect forÂTumor Therapy and Bone Regeneration. Advanced Functional Materials, 2016, 26, 1197-1208.	7.8	238
20	Enhanced thermoelectric properties of CNT/PANI composite nanofibers by highly orienting the arrangement of polymer chains. Journal of Materials Chemistry, 2012, 22, 17612.	6.7	236
21	A comparative study of proliferation and osteogenic differentiation of adipose-derived stem cells on akermanite and Î²-TCP ceramics. Biomaterials, 2008, 29, 4792-4799.	5.7	230
22	Silicate bioceramics enhanced vascularization and osteogenesis through stimulating interactions between endothelia cells and bone marrow stromal cells. Biomaterials, 2014, 35, 3803-3818.	5.7	216
23	The synergistic effects of Sr and Si bioactive ions on osteogenesis, osteoclastogenesis and angiogenesis for osteoporotic bone regeneration. Acta Biomaterialia, 2017, 61, 217-232.	4.1	216
24	Stimulation of proangiogenesis by calcium silicate bioactive ceramic. Acta Biomaterialia, 2013, 9, 5379-5389.	4.1	203
25	Tailoring the Nanostructured Surfaces of Hydroxyapatite Bioceramics to Promote Protein Adsorption, Osteoblast Growth, and Osteogenic Differentiation. ACS Applied Materials & Interfaces, 2013, 5, 8008-8017.	4.0	202
26	3D printing of Haversian boneâ€“mimicking scaffolds for multicellular delivery in bone regeneration. Science Advances, 2020, 6, eaaz6725.	4.7	201
27	Preparation and characteristics of a calcium magnesium silicate (bredigite) bioactive ceramic. Biomaterials, 2005, 26, 2925-2931.	5.7	199
28	Stimulatory effects of the ionic products from Caâ€“Mgâ€“Si bioceramics on both osteogenesis and angiogenesis in vitro. Acta Biomaterialia, 2013, 9, 8004-8014.	4.1	192
29	Electrospun Micropatterned Nanocomposites Incorporated with Cu₂S Nanoflowers for Skin Tumor Therapy and Wound Healing. ACS Nano, 2017, 11, 11337-11349.	7.3	191
30	Strontium-containing mesoporous bioactive glass scaffolds with improved osteogenic/cementogenic differentiation of periodontal ligament cells for periodontal tissue engineering. Acta Biomaterialia, 2012, 8, 3805-3815.	4.1	187
31	A novel â€œhot springâ€•mimetic hydrogel with excellent angiogenic properties for chronic wound healing. Biomaterials, 2021, 264, 120414.	5.7	186
32	3D-printing of highly uniform CaSiO3 ceramic scaffolds: preparation, characterization and in vivo osteogenesis. Journal of Materials Chemistry, 2012, 22, 12288.	6.7	182
33	Dual drug release from electrospun poly(lactic-co-glycolic acid)/mesoporous silica nanoparticles composite mats with distinct release profiles. Acta Biomaterialia, 2012, 8, 1901-1907.	4.1	180
34	Bioglass Activated Skin Tissue Engineering Constructs for Wound Healing. ACS Applied Materials & Interfaces, 2016, 8, 703-715.	4.0	180
35	A novel bioactive porous CaSiO3 scaffold for bone tissue engineering. Journal of Biomedical Materials Research - Part A, 2006, 76A, 196-205.	2.1	178
36	In vitro bioactivity of akermanite ceramics. Journal of Biomedical Materials Research - Part A, 2006, 76A, 73-80.	2.1	175

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37	Comparison of osteoblast-like cell responses to calcium silicate and tricalcium phosphate ceramicsin vitro. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2007, 80B, 174-183.	1.6	174
38	Stimulation of osteogenesis and angiogenesis of hBMSCs by delivering Si ions and functional drug from mesoporous silica nanospheres. Acta Biomaterialia, 2015, 21, 178-189.	4.1	173
39	3D-printed scaffolds with synergistic effect of hollow-pipe structure and bioactive ions for vascularized bone regeneration. Biomaterials, 2017, 135, 85-95.	5.7	171
40	3D printing of a lithium-calcium-silicate crystal bioscaffold with dual bioactivities for osteochondral interface reconstruction. Biomaterials, 2019, 196, 138-150.	5.7	170
41	Grape Seed-Inspired Smart Hydrogel Scaffolds for Melanoma Therapy and Wound Healing. ACS Nano, 2019, 13, 4302-4311.	7.3	169
42	Effect of nano-structured bioceramic surface on osteogenic differentiation of adipose derived stem cells. Biomaterials, 2014, 35, 8514-8527.	5.7	168
43	3D Printing of Lotus Rootâ€Like Biomimetic Materials for Cell Delivery and Tissue Regeneration. Advanced Science, 2017, 4, 1700401.	5.6	168
44	Bioactive Injectable Hydrogels Containing Desferrioxamine and Bioglass for Diabetic Wound Healing. ACS Applied Materials & Interfaces, 2018, 10, 30103-30114.	4.0	165
45	The effect of osteoimmunomodulation on the osteogenic effects ofÂcobalt incorporated Î²-tricalcium phosphate. Biomaterials, 2015, 61, 126-138.	5.7	163
46	Study of the mechanical property and in vitro biocompatibility of CaSiO3 ceramics. Ceramics International, 2005, 31, 323-326.	2.3	160
47	Fabrication and characterization of bioactive wollastonite/PHBV composite scaffolds. Biomaterials, 2004, 25, 5473-5480.	5.7	158
48	Copper Silicate Hollow Microspheres-Incorporated Scaffolds for Chemo-Photothermal Therapy of Melanoma and Tissue Healing. ACS Nano, 2018, 12, 2695-2707.	7.3	158
49	Ultrathin Cu-TCPP MOF nanosheets: a new theragnostic nanoplatform with magnetic resonance/near-infrared thermal imaging for synergistic phototherapy of cancers. Theranostics, 2018, 8, 4086-4096.	4.6	154
50	Porous akermanite scaffolds for bone tissue engineering: Preparation, characterization, andin vitro studies. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2006, 78B, 47-55.	1.6	151
51	3D printing of biomaterials with mussel-inspired nanostructures for tumor therapy and tissue regeneration. Biomaterials, 2016, 111, 138-148.	5.7	151
52	Europium-doped mesoporous silica nanosphere as an immune-modulating osteogenesis/angiogenesis agent. Biomaterials, 2017, 144, 176-187.	5.7	144
53	Bioceramics to regulate stem cells and their microenvironment for tissue regeneration. Materials Today, 2019, 24, 41-56.	8.3	144
54	Regulation of immune response by bioactive ions released from silicate bioceramics for bone regeneration. Acta Biomaterialia, 2018, 66, 81-92.	4.1	144

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55	The stimulation of osteogenic differentiation of human adipose-derived stem cells by ionic products from akermanite dissolution via activation of the ERK pathway. Biomaterials, 2011, 32, 7023-7033.	5.7	140
56	A bifunctional scaffold with CuFeSe2 nanocrystals for tumor therapy and bone reconstruction. Biomaterials, 2018, 160, 92-106.	5.7	139
57	A Novel Akermanite Bioceramic: Preparation and Characteristics. Journal of Biomaterials Applications, 2006, 21, 119-129.	1.2	138
58	A conducive bioceramic/polymer composite biomaterial for diabetic wound healing. Acta Biomaterialia, 2017, 60, 128-143.	4.1	135
59	Nanoporous microstructures mediate osteogenesis by modulating the osteo-immune response of macrophages. Nanoscale, 2017, 9, 706-718.	2.8	134
60	Alginate/Nanohydroxyapatite Scaffolds with Designed Core/Shell Structures Fabricated by 3D Plotting and in Situ Mineralization for Bone Tissue Engineering. ACS Applied Materials & Interfaces, 2015, 7, 6541-6549.	4.0	133
61	The enhancement of bone regeneration by a combination of osteoconductivity and osteostimulation using Î²-CaSiO3/Î²-Ca3(PO4)2 composite bioceramics. Acta Biomaterialia, 2012, 8, 350-360.	4.1	131
62	Functional mesoporous bioactive glass nanospheres: synthesis, high loading efficiency, controllable delivery of doxorubicin and inhibitory effect on bone cancer cells. Journal of Materials Chemistry B, 2013, 1, 2710.	2.9	130
63	The calcium silicate/alginate composite: Preparation and evaluation of its behavior as bioactive injectable hydrogels. Acta Biomaterialia, 2013, 9, 9107-9117.	4.1	129
64	A novel bioactive porous bredigite (Ca7MgSi4O16) scaffold with biomimetic apatite layer for bone tissue engineering. Journal of Materials Science: Materials in Medicine, 2007, 18, 857-864.	1.7	126
65	The cementogenic differentiation of periodontal ligament cells via the activation of Wnt/Î²-catenin signalling pathway by Li+ ions released from bioactive scaffolds. Biomaterials, 2012, 33, 6370-6379.	5.7	124
66	Enhanced osteogenesis through nano-structured surface design of macroporous hydroxyapatite bioceramic scaffolds via activation of ERK and p38 MAPK signaling pathways. Journal of Materials Chemistry B, 2013, 1, 5403.	2.9	124
67	Synergy effects of copper and silicon ions on stimulation of vascularization by copper-doped calcium silicate. Journal of Materials Chemistry B, 2014, 2, 1100-1110.	2.9	124
68	Mesoporous bioactive glass nanolayer-functionalized 3D-printed scaffolds for accelerating osteogenesis and angiogenesis. Nanoscale, 2015, 7, 19207-19221.	2.8	124
69	Crystallography Facet-Dependent Antibacterial Activity: The Case of Cu₂O. Industrial & Engineering Chemistry Research, 2011, 50, 10366-10369.	1.8	122
70	A 3D-printed scaffold with MoS2 nanosheets for tumor therapy and tissue regeneration. NPG Asia Materials, 2017, 9, e376-e376.	3.8	122
71	3D-printed scaffolds with bioactive elements-induced photothermal effect for bone tumor therapy. Acta Biomaterialia, 2018, 73, 531-546.	4.1	122
72	Graphene-oxide-modified Î²-tricalcium phosphate bioceramics stimulate in vitro and in vivo osteogenesis. Carbon, 2015, 93, 116-129.	5.4	116

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73	A novel dual-adhesive and bioactive hydrogel activated by bioglass for wound healing. NPG Asia Materials, 2019, 11, .	3.8	116
74	Defective Black Nano-Titania Thermogels for Cutaneous Tumor-Induced Therapy and Healing. Nano Letters, 2019, 19, 2138-2147.	4.5	116
75	Effect of Tricalcium Silicate on the Proliferation and Odontogenic Differentiation of Human Dental Pulp Cells. Journal of Endodontics, 2011, 37, 1240-1246.	1.4	115
76	3D printing of high-strength bioscaffolds for the synergistic treatment of bone cancer. NPG Asia Materials, 2018, 10, 31-44.	3.8	115
77	Bioglass promotes wound healing by affecting gap junction connexin 43 mediated endothelial cell behavior. Biomaterials, 2016, 84, 64-75.	5.7	114
78	Facile synthesis of hydroxyapatite nanoparticles, nanowires and hollow nano-structured microspheres using similar structured hard-precursors. Nanoscale, 2011, 3, 3052.	2.8	112
79	Self-setting properties and in vitro bioactivity of calcium sulfate hemihydrateâ€"tricalcium silicate composite bone cements. Acta Biomaterialia, 2007, 3, 952-960.	4.1	111
80	Bioactive inorganic/organic nanocomposites for wound healing. Applied Materials Today, 2018, 11, 308-319.	2.3	110
81	Multifunctional Hydrogels Prepared by Dual Ion Cross-Linking for Chronic Wound Healing. ACS Applied Materials & Interfaces, 2017, 9, 16054-16062.	4.0	109
82	Solâ€"gel synthesis and in vitro bioactivity of tricalcium silicate powders. Materials Letters, 2004, 58, 2350-2353.	1.3	108
83	Synthesis and apatite-formation ability of akermanite. Materials Letters, 2004, 58, 2415-2417.	1.3	108
84	Hydrothermal microemulsion synthesis of stoichiometric single crystal hydroxyapatite nanorods with mono-dispersion and narrow-size distribution. Materials Letters, 2007, 61, 1683-1687.	1.3	107
85	An injectable continuous stratified structurally and functionally biomimetic construct for enhancing osteochondral regeneration. Biomaterials, 2019, 192, 149-158.	5.7	107
86	A Facile One-Step Surfactant-Free and Low-Temperature Hydrothermal Method to Prepare Uniform 3D Structured Carbonated Apatite Flowers. Crystal Growth and Design, 2009, 9, 177-181.	1.4	106
87	Bioglass promotes wound healing through modulating the paracrine effects between macrophages and repairing cells. Journal of Materials Chemistry B, 2017, 5, 5240-5250.	2.9	105
88	3D Printed Fe Scaffolds with HA Nanocoating for Bone Regeneration. ACS Biomaterials Science and Engineering, 2018, 4, 608-616.	2.6	105
89	Multifunctional Zn doped hollow mesoporous silica/polycaprolactone electrospun membranes with enhanced hair follicle regeneration and antibacterial activity for wound healing. Nanoscale, 2019, 11, 6315-6333.	2.8	103
90	Multifunctional bioactive Nd-Ca-Si glasses for fluorescence thermometry, photothermal therapy, and burn tissue repair. Science Advances, 2020, 6, eabb1311.	4.7	103

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91	Three-Dimensional Printing of Hollow-Struts-Packed Bioceramic Scaffolds for Bone Regeneration. ACS Applied Materials & Interfaces, 2015, 7, 24377-24383.	4.0	101
92	Novel tricalcium silicate/magnesium phosphate composite bone cement having high compressive strength, in vitro bioactivity and cytocompatibility. Acta Biomaterialia, 2015, 21, 217-227.	4.1	99
93	Hierarchically micro-patterned nanofibrous scaffolds with a nanosized bio-glass surface for accelerating wound healing. Nanoscale, 2015, 7, 18446-18452.	2.8	99
94	Bioactive Scaffolds for Regeneration of Cartilage and Subchondral Bone Interface. Theranostics, 2018, 8, 1940-1955.	4.6	98
95	The role of the micro-pattern and nano-topography of hydroxyapatite bioceramics on stimulating osteogenic differentiation of mesenchymal stem cells. Acta Biomaterialia, 2018, 73, 509-521.	4.1	97
96	Stimulation of osteogenesis and angiogenesis by micro/nano hierarchical hydroxyapatite <i>via</i> macrophage immunomodulation. Nanoscale, 2019, 11, 17699-17708.	2.8	97
97	Bioactive Selfâ€Pumping Composite Wound Dressings with Micropore Array Modified Janus Membrane for Enhanced Diabetic Wound Healing. Advanced Functional Materials, 2020, 30, 2005422.	7.8	97
98	<i>In vitro</i> Degradation, Bioactivity, and Cytocompatibility of Calcium Silicate, Dimagnesium Silicate, and Tricalcium Phosphate Bioceramics. Journal of Biomaterials Applications, 2009, 24, 139-158.	1.2	96
99	Proliferation and osteogenic differentiation of human periodontal ligament cells on akermanite and Î²-TCP bioceramics. , 2011, 22, 68-83.		95
100	Akermanite bioceramics promote osteogenesis, angiogenesis and suppress osteoclastogenesis for osteoporotic bone regeneration. Scientific Reports, 2016, 6, 22005.	1.6	93
101	3D-Printed Bioactive Ca₃SiO₅ Bone Cement Scaffolds with Nano Surface Structure for Bone Regeneration. ACS Applied Materials & Interfaces, 2017, 9, 5757-5767.	4.0	92
102	Bioactive mesoporous calciumâ€“silicate nanoparticles with excellent mineralization ability, osteostimulation, drug-delivery and antibacterial properties for filling apex roots of teeth. Journal of Materials Chemistry, 2012, 22, 16801.	6.7	91
103	Delivery of dimethyloxallyl glycine in mesoporous bioactive glass scaffolds to improve angiogenesis and osteogenesis of human bone marrow stromal cells. Acta Biomaterialia, 2013, 9, 9159-9168.	4.1	91
104	Clinoenstatite coatings have high bonding strength, bioactive ion release, and osteoimmunomodulatory effects that enhance inÂvivo osseointegration. Biomaterials, 2015, 71, 35-47.	5.7	88
105	PDA/Cu Bioactive Hydrogel with â€œHot Ions Effectâ€•for Inhibition of Drug-Resistant Bacteria and Enhancement of Infectious Skin Wound Healing. ACS Applied Materials & Interfaces, 2020, 12, 31255-31269.	4.0	88
106	Design of a thermosensitive bioglass/agaroseâ€“alginate composite hydrogel for chronic wound healing. Journal of Materials Chemistry B, 2015, 3, 8856-8864.	2.9	87
107	3D printing of metal-organic framework nanosheets-structured scaffolds with tumor therapy and bone construction. Biofabrication, 2020, 12, 025005.	3.7	87
108	Characterization of Ca3SiO5/CaCl2 composite cement for dental application. Dental Materials, 2008, 24, 74-82.	1.6	83

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109	A novel hardystonite bioceramic: preparation and characteristics. Ceramics International, 2005, 31, 27-31.	2.3	81
110	Bioactive scaffolds for osteochondral regeneration. Journal of Orthopaedic Translation, 2019, 17, 15-25.	1.9	81
111	A Biâ€Lineage Conducive Scaffold for Osteochondral Defect Regeneration. Advanced Functional Materials, 2014, 24, 4473-4483.	7.8	80
112	Preparation, in vitro bioactivity and drug release property of well-ordered mesoporous 58S bioactive glass. Journal of Non-Crystalline Solids, 2008, 354, 1338-1341.	1.5	79
113	Micro/Nanometerâ€Structured Scaffolds for Regeneration of Both Cartilage and Subchondral Bone. Advanced Functional Materials, 2019, 29, 1806068.	7.8	79
114	Preparation of macroporous calcium silicate ceramics. Materials Letters, 2004, 58, 2109-2113.	1.3	78
115	A simple method to synthesize single-crystalline Î²-wollastonite nanowires. Journal of Crystal Growth, 2007, 300, 267-271.	0.7	78
116	Mesoporous bioactive glasses as drug delivery and bone tissue regeneration platforms. Therapeutic Delivery, 2011, 2, 1189-1198.	1.2	78
117	Design of a biofluid-absorbing bioactive sandwich-structured Znâ€"Si bioceramic composite wound dressing for hair follicle regeneration and skin burn wound healing. Bioactive Materials, 2021, 6, 1910-1920.	8.6	78
118	Bioglass Activated Albumin Hydrogels for Wound Healing. Advanced Healthcare Materials, 2018, 7, e1800144.	3.9	77
119	In vitro assessment of three-dimensionally plotted nagelschmidtite bioceramic scaffolds with varied macropore morphologies. Acta Biomaterialia, 2014, 10, 463-476.	4.1	76
120	Human urine-derived stem cells can be induced into osteogenic lineage by silicate bioceramics via activation of the Wnt/Î²-catenin signaling pathway. Biomaterials, 2015, 55, 1-11.	5.7	76
121	Injectable bioactive akermanite/alginate composite hydrogels for in situ skin tissue engineering. Journal of Materials Chemistry B, 2017, 5, 3315-3326.	2.9	73
122	Bone tissue engineering strategy based on the synergistic effects of silicon and strontium ions. Acta Biomaterialia, 2018, 72, 381-395.	4.1	72
123	The effect of Zn contents on phase composition, chemical stability and cellular bioactivity in Znâ€"Caâ€"Si system ceramics. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2008, 87B, 346-353.	1.6	70
124	An Anisotropically and Heterogeneously Aligned Patterned Electrospun Scaffold with Tailored Mechanical Property and Improved Bioactivity for Vascular Tissue Engineering. ACS Applied Materials & Interfaces, 2015, 7, 8706-8718.	4.0	70
125	Europium-Containing Mesoporous Bioactive Glass Scaffolds for Stimulating in Vitro and in Vivo Osteogenesis. ACS Applied Materials & Interfaces, 2016, 8, 11342-11354.	4.0	68
126	Osteogenic differentiation of osteoblasts induced by calcium silicate and calcium silicate/Î²â€tricalcium phosphate composite bioceramics. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2012, 100B, 1237-1244.	1.6	67

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127	Fabrication of nano-structured calcium silicate coatings with enhanced stability, bioactivity and osteogenic and angiogenic activity. Colloids and Surfaces B: Biointerfaces, 2015, 126, 358-366.	2.5	67
128	Î²â€CaSiO₃/Î²â€Ca₃(PO₄)₂ composite materials for hard tissue repair: <i>In vitro</i> studies. Journal of Biomedical Materials Research - Part A, 2008, 85A, 72-82.	2.1	66
129	Siliconâ€Enhanced Adipogenesis and Angiogenesis for Vascularized Adipose Tissue Engineering. Advanced Science, 2018, 5, 1800776.	5.6	64
130	Synthesis of element-substituted hydroxyapatite with controllable morphology and chemical composition using calcium silicate as precursor. CrystEngComm, 2011, 13, 4850.	1.3	62
131	Designing ordered micropatterned hydroxyapatite bioceramics to promote the growth and osteogenic differentiation of bone marrow stromal cells. Journal of Materials Chemistry B, 2015, 3, 968-976.	2.9	62
132	Synthesis and In vitro Bioactivity of Bredigite Powders. Journal of Biomaterials Applications, 2007, 21, 251-263.	1.2	60
133	Hierarchically porous nagelschmidtite bioceramicâ€“silk scaffolds for bone tissue engineering. Journal of Materials Chemistry B, 2015, 3, 3799-3809.	2.9	59
134	Bioinspired multifunctional biomaterials with hierarchical microstructure for wound dressing. Acta Biomaterialia, 2019, 100, 270-279.	4.1	57
135	Accelerated host angiogenesis and immune responses by ion release from mesoporous bioactive glass. Journal of Materials Chemistry B, 2018, 6, 3274-3284.	2.9	56
136	Chitosan/Calcium Silicate Cardiac Patch Stimulates Cardiomyocyte Activity and Myocardial Performance after Infarction by Synergistic Effect of Bioactive Ions and Aligned Nanostructure. ACS Applied Materials & Interfaces, 2019, 11, 1449-1468.	4.0	56
137	<i>In vitro</i> degradation behavior and bioactivity of magnesiumâ€Bioglass^{Â®} composites for orthopedic applications. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2012, 100B, 437-446.	1.6	55
138	Biodegradable electrospun PLLA/chitosan membrane as guided tissue regeneration membrane for treating periodontitis. Journal of Materials Science, 2013, 48, 6567-6577.	1.7	55
139	Preparation and in vitro osteogenic, angiogenic and antibacterial properties of cuprorivaite (CaCuSi₄O₁₀, Cup) bioceramics. RSC Advances, 2016, 6, 45840-45849.	1.7	55
140	Silicate bioceramics: from soft tissue regeneration to tumor therapy. Journal of Materials Chemistry B, 2019, 7, 5449-5460.	2.9	55
141	Strontium ions protect hearts against myocardial ischemia/reperfusion injury. Science Advances, 2021, 7, .	4.7	55
142	Influence of HEPES buffer on the local pH and formation of surface layer during in vitro degradation tests of magnesium in DMEM. Progress in Natural Science: Materials International, 2014, 24, 531-538.	1.8	54
143	3D Printing of Hot Dogâ€Like Biomaterials with Hierarchical Architecture and Distinct Bioactivity. Advanced Science, 2019, 6, 1901146.	5.6	54
144	Nanobiomaterials: from 0D to 3D for tumor therapy and tissue regeneration. Nanoscale, 2019, 11, 13678-13708.	2.8	54

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145	Black Bioceramics: Combining Regeneration with Therapy. Advanced Materials, 2020, 32, e2005140.	11.1	54
146	Self-Healing Elastinâ€"Bioglass Hydrogels. Biomacromolecules, 2016, 17, 2619-2625.	2.6	53
147	Chinese sesame stick-inspired nano-fibrous scaffolds for tumor therapy and skin tissue reconstruction. Biomaterials, 2019, 194, 25-35.	5.7	53
148	Procyanidins-crosslinked aortic elastin scaffolds with distinctive anti-calcification and biological properties. Acta Biomaterialia, 2015, 16, 81-93.	4.1	52
149	3D Printing of Bioinspired Biomaterials for Tissue Regeneration. Advanced Healthcare Materials, 2020, 9, e2000208.	3.9	52
150	In vitro Proliferation and Osteogenic Differentiation of Human Bone Marrow-derived Mesenchymal Stem Cells Cultured with Hardystonite (Ca2ZnSi 2O7) and Î²-TCP Ceramics. Journal of Biomaterials Applications, 2010, 25, 39-56.	1.2	51
151	Fabrication of Multiple-Layered Hydrogel Scaffolds with Elaborate Structure and Good Mechanical Properties via 3D Printing and Ionic Reinforcement. ACS Applied Materials & Interfaces, 2018, 10, 18338-18350.	4.0	51
152	Multi-functional wound dressings based on silicate bioactive materials. Biomaterials, 2022, 287, 121652.	5.7	51
153	Study on physicochemical properties and in vitro bioactivity of tricalcium silicateâ€"calcium carbonate composite bone cement. Journal of Materials Science: Materials in Medicine, 2008, 19, 2913-2918.	1.7	49
154	Design of a Multifunctional Biomaterial Inspired by Ancient Chinese Medicine for Hair Regeneration in Burned Skin. ACS Applied Materials & Interfaces, 2020, 12, 12489-12499.	4.0	48
155	Antibacterial activity of silicate bioceramics. Journal Wuhan University of Technology, Materials Science Edition, 2011, 26, 226-230.	0.4	47
156	Bioactive scaffolds with Li and Si ions-synergistic effects for osteochondral defects regeneration. Applied Materials Today, 2018, 10, 203-216.	2.3	47
157	Co-inspired hydroxyapatite-based scaffolds for vascularized bone regeneration. Acta Biomaterialia, 2021, 119, 419-431.	4.1	47
158	3D Printing of Strontium Silicate Microcylinderâ€Containing Multicellular Biomaterial Inks for Vascularized Skin Regeneration. Advanced Healthcare Materials, 2021, 10, e2100523.	3.9	46
159	Calciumâ€"phosphateâ€"silicate composite bone cement: self-setting properties and in vitro bioactivity. Journal of Materials Science: Materials in Medicine, 2009, 20, 833-841.	1.7	45
160	Strategies to direct vascularisation using mesoporous bioactive glass-based biomaterials for bone regeneration. International Materials Reviews, 2017, 62, 392-414.	9.4	44
161	Immunomodulatory effects of mesoporous silica nanoparticles on osteogenesis: From nanoimmunotoxicity to nanoimmunotherapy. Applied Materials Today, 2018, 10, 184-193.	2.3	44
162	Sprayable Î²-FeSi2 composite hydrogel for portable skin tumor treatment and wound healing. Biomaterials, 2021, 279, 121225.	5.7	43

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163	Novel Co-akermanite (Ca₂CoSi₂O₇) bioceramics with the activity to stimulate osteogenesis and angiogenesis. Journal of Materials Chemistry B, 2015, 3, 6773-6782.	2.9	42
164	Effects of Wollastonite on Proliferation and Differentiation of Human Bone Marrow-derived Stromal Cells in PHBV/Wollastonite Composite Scaffolds. Journal of Biomaterials Applications, 2009, 24, 231-246.	1.2	41
165	Combined chemical and structural signals of biomaterials synergistically activate cell-cell communications for improving tissue regeneration. Acta Biomaterialia, 2017, 55, 249-261.	4.1	41
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