

A mini review focused on the proangiogenic role of silicon-
silicon-containing biomaterials

Journal of Tissue Engineering

8, 204173141770733

DOI: 10.1177/2041731417707339

Citation Report

#	ARTICLE	IF	CITATIONS
1	Biomimetically grown apatite spheres from aggregated bioglass nanoparticles with ultrahigh porosity and surface area imply potential drug delivery and cell engineering applications. <i>Acta Biomaterialia</i> , 2017, 60, 38-49.	4.1	19
2	Bioinspired Composite Matrix Containing Hydroxyapatite“Silica Core”Shell Nanorods for Bone Tissue Engineering. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 26707-26718.	4.0	48
3	Bioactive Glasses: Sprouting Angiogenesis in Tissue Engineering. <i>Trends in Biotechnology</i> , 2018, 36, 430-444.	4.9	253
4	Development and characterization of zinc-incorporated montmorillonite/poly(ϵ -caprolactone) composite scaffold for osteogenic tissue engineering applications. <i>Polymer Composites</i> , 2018, 39, E601.	2.3	4
5	Feasibility of Defect Tunable Bone Engineering Using Electroblown Bioactive Fibrous Scaffolds with Dental Stem Cells. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 1019-1028.	2.6	15
6	A simple way of modulating in vitro angiogenic response using Cu and Co-doped bioactive glasses. <i>Materials Letters</i> , 2018, 215, 87-90.	1.3	19
7	Osteoblast response to Vitamin D3 loaded cellulose enriched hydroxyapatite Mesoporous silica nanoparticles composite. <i>Biomedicine and Pharmacotherapy</i> , 2018, 103, 858-868.	2.5	30
8	Reconstruction of radial bone defect in rat by calcium silicate biomaterials. <i>Life Sciences</i> , 2018, 201, 45-53.	2.0	25
9	Reformulated mineral trioxide aggregate components and the assessments for use as future dental regenerative cements. <i>Journal of Tissue Engineering</i> , 2018, 9, 204173141880739.	2.3	23
10	Auditory disorders and future therapies with delivery systems. <i>Journal of Tissue Engineering</i> , 2018, 9, 204173141880845.	2.3	19
11	Intra-articular biomaterials-assisted delivery to treat temporomandibular joint disorders. <i>Journal of Tissue Engineering</i> , 2018, 9, 204173141877651.	2.3	37
12	A review of biomaterials in bone defect healing, remaining shortcomings and future opportunities for bone tissue engineering. <i>Bone and Joint Research</i> , 2018, 7, 232-243.	1.3	345
13	Dual release of growth factor from nanocomposite fibrous scaffold promotes vascularisation and bone regeneration in rat critical sized calvarial defect. <i>Acta Biomaterialia</i> , 2018, 78, 36-47.	4.1	85
14	Osteochondral Angiogenesis and Promoted Vascularization: New Therapeutic Target. <i>Advances in Experimental Medicine and Biology</i> , 2018, 1059, 315-330.	0.8	7
15	Depth-Dependent Cellular Response from Dental Bulk-Fill Resins in Human Dental Pulp Stem Cells. <i>Stem Cells International</i> , 2019, 2019, 1-11.	1.2	7
16	Space-Oriented Nanofibrous Scaffold with Silicon-Doped Amorphous Calcium Phosphate Nanocoating for Diabetic Wound Healing. <i>ACS Applied Bio Materials</i> , 2019, 2, 787-795.	2.3	27
17	Synergistic Effect of Porous Hydroxyapatite Scaffolds Combined with Bioactive Glass/Poly(lactic-co-glycolic acid) Composite Fibers Promotes Osteogenic Activity and Bioactivity. <i>ACS Omega</i> , 2019, 4, 2302-2310.	1.6	21
18	Review of the nature of some geophagic materials and their potential health effects on pregnant women: some examples from Africa. <i>Environmental Geochemistry and Health</i> , 2019, 41, 2949-2975.	1.8	17

#	ARTICLE	IF	CITATIONS
19	In Vitro Bioactivity and Cell Biocompatibility of a Hypereutectic Bioceramic. <i>Symmetry</i> , 2019, 11, 355.	1.1	2
20	Effects of Silicon Compounds on Biomineralization, Osteogenesis, and Hard Tissue Formation. <i>Pharmaceutics</i> , 2019, 11, 117.	2.0	112
21	Angiogenesis-promoted bone repair with silicate-shelled hydrogel fiber scaffolds. <i>Biomaterials Science</i> , 2019, 7, 5221-5231.	2.6	40
22	Microtubule destabilization caused by silicate via HDAC6 activation contributes to autophagic dysfunction in bone mesenchymal stem cells. <i>Stem Cell Research and Therapy</i> , 2019, 10, 351.	2.4	6
23	Dual-ion delivery for synergistic angiogenesis and bactericidal capacity with silica-based microsphere. <i>Acta Biomaterialia</i> , 2019, 83, 322-333.	4.1	41
24	High Concentration of Sodium Metasilicate Impairs Autophagic Flux and Induces Apoptosis in Human Umbilical Vein Endothelial Cells. <i>Biological Trace Element Research</i> , 2019, 191, 88-97.	1.9	5
25	Mesoporous zinc silicate bio-composite: Preparation, characterization and in vitro evaluation. <i>Microporous and Mesoporous Materials</i> , 2019, 277, 124-131.	2.2	7
26	Electrophoretic coatings of hydroxyapatite with various nanocrystal shapes. <i>Materials Letters</i> , 2019, 234, 148-154.	1.3	36
27	Amorphous Silicon Oxynitrophosphide-Coated Implants Boost Angiogenic Activity of Endothelial Cells. <i>Tissue Engineering - Part A</i> , 2020, 26, 15-27.	1.6	18
28	Modulating the cobalt dose range to manipulate multisystem cooperation in bone environment: a strategy to resolve the controversies about cobalt use for orthopedic applications. <i>Theranostics</i> , 2020, 10, 1074-1089.	4.6	32
29	3D printing of metal-organic framework nanosheets-structured scaffolds with tumor therapy and bone construction. <i>Biofabrication</i> , 2020, 12, 025005.	3.7	87
30	“Hard”-ceramics for “Soft”-tissue engineering: Paradox or opportunity?. <i>Acta Biomaterialia</i> , 2020, 115, 1-28.	4.1	63
31	Bioactive Glasses: A Promising Therapeutic Ion Release Strategy for Enhancing Wound Healing. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 5399-5430.	2.6	99
32	In Vivo Validation of Spray-Dried Mesoporous Bioactive Glass Microspheres Acting as Prolonged Local Release Systems for BMP-2 to Support Bone Regeneration. <i>Pharmaceutics</i> , 2020, 12, 823.	2.0	17
33	A Review of Bioactive Glass/Natural Polymer Composites: State of the Art. <i>Materials</i> , 2020, 13, 5560.	1.3	86
34	Radiographic and clinical outcomes of silicate-substituted calcium phosphate (SiCaP) bone grafts in spinal fusion: Systematic review and meta-analysis. <i>Journal of Clinical Neuroscience</i> , 2020, 81, 353-366.	0.8	5
35	Nanoscale Calcium Salt-Based Formulations As Potential Therapeutics for Osteoporosis. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 4604-4613.	2.6	9
36	Polycaprolactone Electrospun Fiber Mats Prepared Using Benign Solvents: Blending with Copper(II)-Chitosan Increases the Secretion of Vascular Endothelial Growth Factor in a Bone Marrow Stromal Cell Line. <i>Macromolecular Bioscience</i> , 2020, 20, e1900355.	2.1	12

#	ARTICLE	IF	CITATIONS
37	Biological Factors, Metals, and Biomaterials Regulating Osteogenesis through Autophagy. <i>International Journal of Molecular Sciences</i> , 2020, 21, 2789.	1.8	18
38	Multifunctional Copper-Containing Mesoporous Glass Nanoparticles as Antibacterial and Proangiogenic Agents for Chronic Wounds. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 246.	2.0	33
39	Effect of bioglass on <i>in vitro</i> bioactivity and cytocompatibility of biphasic β -tricalcium phosphate/gypsum cements. <i>Materials Technology</i> , 2021, 36, 400-411.	1.5	6
40	Nanomedicine in Healing Chronic Wounds: Opportunities and Challenges. <i>Molecular Pharmaceutics</i> , 2021, 18, 550-575.	2.3	84
41	Nanotherapeutics for regeneration of degenerated tissue infected by bacteria through the multiple delivery of bioactive ions and growth factor with antibacterial/angiogenic and osteogenic/odontogenic capacity. <i>Bioactive Materials</i> , 2021, 6, 123-136.	8.6	53
42	Materials roles for promoting angiogenesis in tissue regeneration. <i>Progress in Materials Science</i> , 2021, 117, 100732.	16.0	81
43	Antibacterial, proangiogenic, and osteopromotive nanoglass paste coordinates regenerative process following bacterial infection in hard tissue. <i>Biomaterials</i> , 2021, 268, 120593.	5.7	37
44	Silicon Oxynitrophosphide Nanoscale Coating Enhances Antioxidant Marker-Induced Angiogenesis During <i>in vivo</i> Cranial Bone Defect Healing. <i>JBMR Plus</i> , 2021, 5, e10425.	1.3	12
45	A comparison of the degradation behaviour of 3D printed PDLGA scaffolds incorporating bioglass or biosilica. <i>Materials Science and Engineering C</i> , 2021, 120, 111755.	3.8	20
46	Fabrication of ciprofloxacin-loaded chitosan/polyethylene oxide/silica nanofibers for wound dressing application: <i>In vitro</i> and <i>in vivo</i> evaluations. <i>International Journal of Pharmaceutics</i> , 2021, 597, 120313.	2.6	47
47	Filament extrusion of bioresorbable PDLGA for additive manufacturing utilising diatom biosilica to inhibit process-induced thermal degradation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 116, 104265.	1.5	4
48	Inorganic Agents for Enhanced Angiogenesis of Orthopedic Biomaterials. <i>Advanced Healthcare Materials</i> , 2021, 10, e2002254.	3.9	35
49	A co-delivery platform for synergistic promotion of angiogenesis based on biodegradable, therapeutic and self-reporting luminescent porous silicon microparticles. <i>Biomaterials</i> , 2021, 272, 120772.	5.7	40
50	Bioactive Glass: Methods for Assessing Angiogenesis and Osteogenesis. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 643781.	1.8	28
51	Production of biosilica based bioactive glass-alginate composite putty as bone support material, and evaluation of <i>in vitro</i> properties; bioactivity and cytotoxicity behavior. <i>Journal of Non-Crystalline Solids</i> , 2021, 561, 120755.	1.5	15
52	Effect of wheat gluten on improved thermal cross-linking and osteogenesis of hydroxyapatite-gelatin composite scaffolds. <i>International Journal of Biological Macromolecules</i> , 2021, 183, 1200-1209.	3.6	4
53	Nano/micro-structured poly(ϵ -caprolactone)/gelatin nanofibers with biomimetically-grown hydroxyapatite spherules: High protein adsorption, controlled protein delivery and sustained bioactive ions release designed as a multifunctional bone regenerative membrane. <i>Ceramics International</i> , 2021, 47, 19873-19885.	2.3	14
54	Bifunctional poly (l-lactic acid)/hydrophobic silica nanocomposite layer coated on magnesium stents for enhancing corrosion resistance and endothelial cell responses. <i>Materials Science and Engineering C</i> , 2021, 127, 112239.	3.8	13

#	ARTICLE	IF	CITATIONS
55	Effect of silicon-doped calcium phosphate cement on angiogenesis based on controlled macrophage polarization. <i>Acta Biochimica Et Biophysica Sinica</i> , 2021, 53, 1516-1526.	0.9	10
56	Synergies of Human Umbilical Vein Endothelial Cell-Laden Calcium Silicate-Activated Gelatin Methacrylate for Accelerating 3D Human Dental Pulp Stem Cell Differentiation for Endodontic Regeneration. <i>Polymers</i> , 2021, 13, 3301.	2.0	5
57	Sol-gel synthesis and characterization of novel cobalt ions-containing mesoporous bioactive glass nanospheres as hypoxia and ferroptosis-inducing nanotherapeutics. <i>Journal of Non-Crystalline Solids</i> , 2021, 569, 120999.	1.5	21
58	The personalized design and customization of bone cement can be realized by adjusting the carbonization process of modified tricalcium silicate. <i>Ceramics International</i> , 2021, 47, 32332-32341.	2.3	0
59	Combinatorial effect of nano whitlockite/nano bioglass with FGF-18 in an injectable hydrogel for craniofacial bone regeneration. <i>Biomaterials Science</i> , 2021, 9, 2439-2453.	2.6	26
60	Drug Delivery Systems Based on Titania Nanotubes and Active Agents for Enhanced Osseointegration of Bone Implants. <i>Current Medicinal Chemistry</i> , 2020, 27, 854-902.	1.2	22
61	Strontium- and Zinc-Containing Bioactive Glass and Alginates Scaffolds. <i>Bioengineering</i> , 2020, 7, 10.	1.6	23
63	Tailoring Mechanical and <i>In Vitro</i> Biological Properties of Calcium-Silicate Based Bioceramic Through Iron Doping in Developing Future Material. <i>SSRN Electronic Journal</i> , 0, , .	0.4	1
64	Silver-doped calcium silicate sol-gel glasses with a cotton-wool-like structure for wound healing. <i>Materials Science and Engineering C</i> , 2022, 134, 112561.	3.8	7
65	Calcium Phosphate and Silicate-Based Nanoparticles: History and Emerging Trends. <i>Tissue Engineering - Part A</i> , 2022, 28, 461-477.	1.6	7
66	Investigating the mechanophysical and biological characteristics of therapeutic dental cement incorporating copper doped bioglass nanoparticles. <i>Dental Materials</i> , 2022, 38, 363-375.	1.6	13
67	Tailoring mechanical and in vitro biological properties of calcium-silicate based bioceramic through iron doping in developing future material. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 128, 105122.	1.5	9
68	Self-assembling peptide gels promote angiogenesis and functional recovery after spinal cord injury in rats. <i>Journal of Tissue Engineering</i> , 2022, 13, 204173142210864.	2.3	15
69	Cytocompatibility and Bioactive Ion Release Profiles of Phosphoserine Bone Adhesive: Bridge from In Vitro to In Vivo. <i>Biomedicines</i> , 2022, 10, 736.	1.4	4
70	Bioactive inorganic particles-based biomaterials for skin tissue engineering. <i>Exploration</i> , 2022, 2, .	5.4	41
71	Thiolated hyaluronic acid/silk fibroin dual-network hydrogel incorporated with bioglass nanoparticles for wound healing. <i>Carbohydrate Polymers</i> , 2022, 288, 119334.	5.1	20
72	Nanocomposite fibrous scaffold mediated mandible reconstruction and dental rehabilitation: An experimental study in pig model. <i>Materials Science and Engineering C</i> , 2021, , 112631.	3.8	5
73	Effect of Angiogenesis in Bone Tissue Engineering. <i>Annals of Biomedical Engineering</i> , 2022, 50, 898-913.	1.3	22

#	ARTICLE	IF	CITATIONS
77	Highly bioactive bone cement microspheres based on β -tricalcium phosphate microparticles/mesoporous bioactive glass nanoparticles: Formulation, physico-chemical characterization and in vivo bone regeneration. <i>Colloids and Surfaces B: Biointerfaces</i> , 2022, 217, 112650.	2.5	11
78	Angiogenesis induction by bioactive glasses and glass-ceramics. , 2022, , 203-226.		0
79	Review on the Biocompatibility and Bioactivity of Forsterite: In Vitro and in Vivo studies. , 2022, 11, 167-190.		1
80	Multi-functional wound dressings based on silicate bioactive materials. <i>Biomaterials</i> , 2022, 287, 121652.	5.7	51
81	FORSTERITE AS AN ALTERNATIVE FOR ORTHOPAEDIC IMPLANTS – SHORT REVIEW. , 2021, 6, 32-52.		0
82	Engineering elastic bioactive composite hydrogels for promoting osteogenic differentiation of embryonic mesenchymal stem cells. <i>Frontiers in Bioengineering and Biotechnology</i> , 0, 10, .	2.0	2
83	A Multifunctional Coating Strategy for Promotion of Immunomodulatory and Osteo/Angio-Genic Activity. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	11
84	Nanofiber/hydrogel composite scaffold incorporated by silicon nanoparticles for sustained delivery of osteogenic factor: <i>in vitro</i> study. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 0, , 1-14.	1.8	0
85	Collagen scaffold impregnated with borosilicate bioactive glass for endometrial healing. <i>Applied Materials Today</i> , 2023, 30, 101727.	2.3	1
86	Materials-based nanotherapeutics for injured and diseased bone. <i>Progress in Materials Science</i> , 2023, 135, 101087.	16.0	11
87	Functionalized 3D-printed porous titanium scaffold induces in situ vascularized bone regeneration by orchestrating bone microenvironment. <i>Journal of Materials Science and Technology</i> , 2023, 153, 92-105.	5.6	7
88	Biomedical application of anodic nanomaterials. , 2023, , 395-441.		0
89	An injectable hydrogel combining medicine and matrix with anti-inflammatory and pro-angiogenic properties for potential treatment of myocardial infarction. <i>International Journal of Energy Production and Management</i> , 2023, 10, .	1.9	6
101	Silicon-containing nanomedicine and biomaterials: materials chemistry, multi-dimensional design, and biomedical application. <i>Chemical Society Reviews</i> , 2024, 53, 1167-1315.	18.7	1