Genipinâ€crossâ€linked collagen/chitosan biomimetic engineering applications

Journal of Biomedical Materials Research - Part A

95A, 465-475

DOI: 10.1002/jbm.a.32869

Citation Report

#	Article	IF	Citations
1	Chitosan: A Promising Biomaterial for Tissue Engineering Scaffolds. Advances in Polymer Science, 2011, , 45-79.	0.4	40
2	Effect of Genipin Crosslinking on the Optical Spectral Properties and Structures of Collagen Hydrogels. ACS Applied Materials & Interfaces, 2011, 3, 2579-2584.	4.0	98
3	Collagen- vs. Gelatine-Based Biomaterials and Their Biocompatibility: Review and Perspectives. , 0, , .		91
4	Crossâ€linked collagen sponges loaded with plant polyphenols with inhibitory activity towards chronic wound enzymes. Biotechnology Journal, 2011, 6, 1208-1218.	1.8	31
5	Biomedical applications of biodegradable polymers. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 832-864.	2.4	1,718
6	Injectable Collagenâ€“Genipin Gel for the Treatment of Spinal Cord Injury: In Vitro Studies. Advanced Functional Materials, 2011, 21, 4788-4797.	7.8	83
7	Leveraging â€œRaw Materialsâ€•as Building Blocks and Bioactive Signals in Regenerative Medicine. Tissue Engineering - Part B: Reviews, 2012, 18, 341-362.	2.5	68
8	Surface Phosphorylation for Polyelectrolyte Complex of Chitosan and Its Sulfonated Derivative: Surface Analysis, Blood Compatibility and Adipose Derived Stem Cell Contact Properties. Journal of Biomaterials Science, Polymer Edition, 2012, 23, 233-250.	1.9	9
9	Elastic chitosan conduits with multiple channels and well defined microstructure. International Journal of Biological Macromolecules, 2012, 51, 105-112.	3.6	15
10	Chitosan, hyaluronan and chondroitin sulfate in tissue engineering for cartilage regeneration: A review. Carbohydrate Polymers, 2012, 89, 723-739.	5.1	373
11	Porous chitosan scaffold cross-linked by chemical and natural procedure applied to investigate cell regeneration. Applied Surface Science, 2012, 262, 218-221.	3.1	24
12	Macro/microporous silk fibroin scaffolds with potential for articular cartilage and meniscus tissue engineering applications. Acta Biomaterialia, 2012, 8, 289-301.	4.1	276
13	Oriented cartilage extracellular matrix-derived scaffold for cartilage tissue engineering. Journal of Bioscience and Bioengineering, 2012, 113, 647-653.	1.1	77
14	Modulation of the proliferation and matrix synthesis of chondrocytes by dynamic compression on genipin-crosslinked chitosan/collagen scaffolds. Journal of Biomaterials Science, Polymer Edition, 2013, 24, 507-519.	1.9	19
15	Optimization strategies on the structural modeling of gelatin/chitosan scaffolds to mimic human meniscus tissue. Materials Science and Engineering C, 2013, 33, 4777-4785.	3.8	67
16	Functional biopolymer-based matrices for modulation of chronic wound enzyme activities. Acta Biomaterialia, 2013, 9, 5216-5225.	4.1	32
17	Preparation and characterization of genipin-crosslinked rat acellular spinal cord scaffolds. Materials Science and Engineering C, 2013, 33, 3514-3521.	3.8	40
18	Porous Hydrogels From Shark Skin Collagen Crosslinked Under Dense Carbon Dioxide Atmosphere. Macromolecular Bioscience, 2013, 13, 1621-1631.	2.1	37

#	Article	IF	Citations
19	De novo bone formation on macro/microporous silk and silk/nano-sized calcium phosphate scaffolds. Journal of Bioactive and Compatible Polymers, 2013, 28, 439-452.	0.8	29
20	Chitosan/poly(vinyl alcohol) hydrogel combined with Ad-hTGF-Î²1 transfected mesenchymal stem cells to repair rabbit articular cartilage defects. Experimental Biology and Medicine, 2013, 238, 23-30.	1.1	50
21	How can genipin assist gelatin/carbohydrate chitosan scaffolds to act as replacements of load-bearing soft tissues?. Carbohydrate Polymers, 2013, 93, 635-643.	5.1	60
22	Three-dimensional osteochondral microtissue to model pathogenesis of osteoarthritis. Stem Cell Research and Therapy, 2013, 4, S6.	2.4	62
23	The effects of crosslinking of scaffolds engineered from cartilage ECM on the chondrogenic differentiation of MSCs. Biomaterials, 2013, 34, 5802-5812.	5.7	163
24	Bioactive macro/micro porous silk fibroin/nano-sized calcium phosphate scaffolds with potential for bone-tissue-engineering applications. Nanomedicine, 2013, 8, 359-378.	1.7	60
25	Bioengineering of articular cartilage: past, present and future. Regenerative Medicine, 2013, 8, 333-349.	0.8	30
26	Cells Behave Distinctly Within Sponges and Hydrogels Due to Differences of Internal Structure. Tissue Engineering - Part A, 2013, 19, 2166-2175.	1.6	37
27	Synthesis and characterization of biosheet impregnated with Macrotyloma uniflorum extract for burn/wound dressings. Colloids and Surfaces B: Biointerfaces, 2013, 102, 694-699.	2.5	41
28	Evaluation of Multifunctional Polysaccharide Hydrogels with Varying Stiffness for Bone Tissue Engineering. Tissue Engineering - Part A, 2013, 19, 2452-2463.	1.6	36
29	Biopolymer-based hydrogels as injectable materials for tissue repair scaffolds. Biomedical Materials (Bristol), 2013, 8, 035013.	1.7	28
30	Collagen-based tissue repair composite. , 0, , 183-202.		0
31	Skin Equivalent Tissue-Engineered Construct: Co-Cultured Fibroblasts/ Keratinocytes on 3D Matrices of Sericin Hope Cocoons. PLoS ONE, 2013, 8, e74779.	1.1	63
32	â€˜Genipinâ€™ â€“ The Natural Water Soluble Cross-linking Agent and Its Importance in the Modified Drug Delivery Systems: An Overview. Current Drug Delivery, 2014, 11, 139-145.	0.8	104
33	25th Anniversary Article: Designer Hydrogels for Cell Cultures: A Materials Selection Guide. Advanced Materials, 2014, 26, 125-148.	11.1	368
34	Chitin and Chitosan Composites for Bone Tissue Regeneration. Advances in Food and Nutrition Research, 2014, 73, 59-81.	1.5	52
35	Blends and Nanocomposite Biomaterials for Articular Cartilage Tissue Engineering. Materials, 2014, 7, 5327-5355.	1.3	59
36	Nanostructured Hollow Tubes Based on Chitosan and Alginate Multilayers. Advanced Healthcare Materials, 2014, 3, 433-440.	3.9	48

#	Article	IF	Citations
37	The effects of different crossing-linking conditions of genipin on type I collagen scaffolds: an in vitro evaluation. Cell and Tissue Banking, 2014, 15, 531-541.	0.5	52
38	Strategies for directing the structure and function of three-dimensional collagen biomaterials across length scales. Acta Biomaterialia, 2014, 10, 1488-1501.	4.1	180
39	Chitin and chitosan in selected biomedical applications. Progress in Polymer Science, 2014, 39, 1644-1667.	11.8	780
40	Mechanical properties, biological activity and protein controlled release by poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 627 Materials Science and Engineering C, 2014, 38, 63-72.	3.8	70
41	Preparation and characterization of genipin cross-linked porous chitosanâ€“collagenâ€“gelatin scaffolds using chitosanâ€“CO2 solution. Carbohydrate Polymers, 2014, 102, 901-911.	5.1	114
42	Synthesis of a Semi-Interpenetrating Polymer Network as a Bioactive Curcumin Film. AAPS PharmSciTech, 2014, 15, 1476-1489.	1.5	15
43	Tissue Engineering and Regenerative Medicine Strategies for the Treatment of Osteochondral Lesions. , 2014, , 25-47.		8
44	Genotoxicity effect, antioxidant and biomechanical correlation: Experimental study of agaroseâ€“chitosan bone graft substitute in New Zealand white rabbit model. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2014, 228, 800-809.	1.0	7
45	Chitosan-protein scaffolds loaded with lysostaphin as potential antistaphylococcal wound dressing materials. Journal of Applied Microbiology, 2014, 117, 634-642.	1.4	17
46	Genipin-Cross-Linked Layer-by-Layer Assemblies: Biocompatible Microenvironments To Direct Bone Cell Fate. Biomacromolecules, 2014, 15, 1602-1611.	2.6	38
47	Biomimetic Miniaturized Platform Able to Sustain Arrays of Liquid Droplets for Highâ€Throughput Combinatorial Tests. Advanced Functional Materials, 2014, 24, 5096-5103.	7.8	58
48	Nanoporous anodic aluminum oxide tube encapsulating a microporous chitosan/collagen composite for long-acting drug release. Biomedical Physics and Engineering Express, 2015, 1, 045004.	0.6	4
49	Genipin crosslinking of cartilage enhances resistance to biochemical degradation and mechanical wear. Journal of Orthopaedic Research, 2015, 33, 1571-1579.	1.2	39
50	Effect of Human Adipose Tissue Mesenchymal Stem Cells on the Regeneration of Ovine Articular Cartilage. International Journal of Molecular Sciences, 2015, 16, 26813-26831.	1.8	22
51	Genipin-Crosslinked Chitosan Gels and Scaffolds for Tissue Engineering and Regeneration of Cartilage and Bone. Marine Drugs, 2015, 13, 7314-7338.	2.2	211
52	Chitosan and Its Potential Use as a Scaffold for Tissue Engineering in Regenerative Medicine. BioMed Research International, 2015, 2015, 1-15.	0.9	416
53	Genipin-crosslinked electrospun chitosan nanofibers: Determination of crosslinking conditions and evaluation of cytocompatibility. Carbohydrate Polymers, 2015, 130, 166-174.	5.1	80
54	Osteogenic differentiation of human mesenchymal stem cells in freeze-gelled chitosan/nano Î²-tricalcium phosphate porous scaffolds crosslinked with genipin. Materials Science and Engineering C, 2015, 54, 76-83.	3.8	52

#	Article	IF	Citations
55	Tailoring Material Properties of Cardiac Matrix Hydrogels To Induce Endothelial Differentiation of Human Mesenchymal Stem Cells. ACS Applied Materials & Interfaces, 2015, 7, 11053-11061.	4.0	60
56	Triple helical collagen-like peptide interactions with selected polyphenolic compounds. RSC Advances, 2015, 5, 95443-95453.	1.7	14
58	In vitroevaluation of the biological performance of macro/micro-porous silk fibroin and silk-nano calcium phosphate scaffolds. , 2015, 103, 888-898.		25
59	Tough, In-Situ Thermogelling, Injectable Hydrogels for Biomedical Applications. Macromolecular Bioscience, 2015, 15, 473-480.	2.1	27
60	Characterization of the modified chitosan membrane cross-linked with genipin for the cultured corneal epithelial cells. Colloids and Surfaces B: Biointerfaces, 2015, 126, 237-244.	2.5	27
61	Fabrication and characterization of layered chitosan/silk fibroin/nano-hydroxyapatite scaffolds with designed composition and mechanical properties. Biomedical Materials (Bristol), 2015, 10, 045013.	1.7	30
62	HPLC detection of loss rate and cell migration of HUVECs in a proanthocyanidin cross-linked recombinant human collagen-peptide (RHC)â€“chitosan scaffold. Materials Science and Engineering C, 2015, 56, 555-563.	3.8	11
64	Hierarchically biomimetic scaffold of a collagenâ€“mesoporous bioactive glass nanofiber composite for bone tissue engineering. Biomedical Materials (Bristol), 2015, 10, 025007.	1.7	30
65	Evaluation of kappa carrageenan as potential carrier for floating drug delivery system: Effect of cross linker. International Journal of Pharmaceutics, 2015, 496, 323-331.	2.6	44
66	Antibacterial performance of bovine lactoferrin-fish gelatine electrospun membranes. International Journal of Biological Macromolecules, 2015, 81, 608-614.	3.6	27
67	Three dimensionalde novomicro bone marrow and its versatile application in drug screening and regenerative medicine. Experimental Biology and Medicine, 2015, 240, 1029-1038.	1.1	5
68	Chitosan/gelatin composite sponge is an absorbable surgical hemostatic agent. Colloids and Surfaces B: Biointerfaces, 2015, 136, 1026-1034.	2.5	175
69	Plumbagin caged silver nanoparticle stabilized collagen scaffold for wound dressing. Journal of Materials Chemistry B, 2015, 3, 1415-1425.	2.9	40
70	Bilayered silk/silk-nanoCaP scaffolds for osteochondral tissue engineering: In vitro and in vivo assessment of biological performance. Acta Biomaterialia, 2015, 12, 227-241.	4.1	140
71	Silk fibroinâ€“keratin based 3D scaffolds as a dermal substitute for skin tissue engineering. Integrative Biology (United Kingdom), 2015, 7, 53-63.	0.6	139
72	Crosslinked fibrin gels for tissue engineering: Two approaches to improve their properties. Journal of Biomedical Materials Research - Part A, 2015, 103, 614-621.	2.1	36
73	Fabrication of cellulosic composite scaffolds for cartilage tissue engineering. , 2016, , 187-212.		7
74	Multifunctional biomaterials from the sea: Assessing the effects of chitosan incorporation into collagen scaffolds on mechanical and biological functionality. Acta Biomaterialia, 2016, 43, 160-169.	4.1	123

#	Article	IF	Citations
75	Use of novel chitosan hydrogels for chemical tissue bonding of autologous chondral transplants. Journal of Orthopaedic Research, 2016, 34, 1139-1146.	1.2	6
76	Hybrid cross-linked hydrogels based on fibrous protein/block copolymers and layered silicate nanoparticles: tunable thermosensitivity, biodegradability and mechanical durability. RSC Advances, 2016, 6, 62944-62957.	1.7	67
77	Genipin-crosslinked gelatin microspheres as a strategy to prevent postsurgical peritoneal adhesions: InÂvitro and inÂvivo characterization. Biomaterials, 2016, 96, 33-46.	5.7	117
78	Physical properties imparted by genipin to chitosan for tissue regeneration with human stem cells: A review. International Journal of Biological Macromolecules, 2016, 93, 1366-1381.	3.6	63
79	Collagenâ€“hyaluronic acid based interpenetrating polymer networks as tissue engineered heart valve. Materials Science and Technology, 2016, 32, 871-882.	0.8	12
80	Preserving the longevity of long-lived type II collagen and its implication for cartilage therapeutics. Ageing Research Reviews, 2016, 28, 62-71.	5.0	30
81	Comparison of the properties of collagenâ€“chitosan scaffolds after Î³-ray irradiation and carbodiimide cross-linking. Journal of Biomaterials Science, Polymer Edition, 2016, 27, 937-953.	1.9	23
82	Curcumin cross-linked collagen aerogels with controlled anti-proteolytic and pro-angiogenic efficacy. Biomedical Materials (Bristol), 2016, 11, 045011.	1.7	39
83	Electroconductive natural polymer-based hydrogels. Biomaterials, 2016, 111, 40-54.	5.7	287
84	Nanocellulose-Based Interpenetrating Polymer Network (IPN) Hydrogels for Cartilage Applications. Biomacromolecules, 2016, 17, 3714-3723.	2.6	162
86	Design and characterization of microcapsules-integrated collagen matrixes as multifunctional three-dimensional scaffolds for soft tissue engineering. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 62, 209-221.	1.5	17
87	Isolation, characterization, and inÂvitro evaluation of bovine rumen submucosa films of collagen or chitosan-treated collagen. Journal of Biomaterials Applications, 2016, 30, 780-792.	1.2	11
88	Polyelectrolyte multilayer film modification for chemo-mechano-regulation of endothelial cell response. RSC Advances, 2016, 6, 8811-8828.	1.7	11
89	Highly biocompatible collagenâ€“ Delonix regia seed polysaccharide hybrid scaffolds for antimicrobial wound dressing. Carbohydrate Polymers, 2016, 137, 584-593.	5.1	35
90	Evaluation of alternative sources of collagen fractions from Loligo vulgaris squid mantle. International Journal of Biological Macromolecules, 2016, 87, 504-513.	3.6	26
91	Incorporation of zeolite and silica nanoparticles into electrospun PVA/collagen nanofibrous scaffolds: The influence on the physical, chemical properties and cell behavior. International Journal of Polymeric Materials and Polymeric Biomaterials, 2016, 65, 457-465.	1.8	35
92	Decellularized laminate tissues and their derivatives as templates intended for abdominal wall regeneration. Materials Letters, 2016, 164, 659-664.	1.3	4
93	Preparation and characterization of crosslinked chitosan/gelatin scaffolds by ice segregation induced self-assembly. Carbohydrate Polymers, 2016, 141, 175-183.	5.1	136

#	Article	IF	Citations
94	Chitosan films with improved tensile strength and toughness from N-acetyl-cysteine mediated disulfide bonds. Carbohydrate Polymers, 2016, 139, 1-9.	5.1	40
95	Biological properties of dialdehyde carboxymethyl cellulose crosslinked gelatinâ€“PEG composite hydrogel fibers for wound dressings. Carbohydrate Polymers, 2016, 137, 508-514.	5.1	141
96	Modified silk fibroin scaffolds with collagen/decellularized pulp for bone tissue engineering in cleft palate: Morphological structures and biofunctionalities. Materials Science and Engineering C, 2016, 58, 1138-1149.	3.8	41
97	Flexible fibers wet-spun from formic acid modified chitosan. Carbohydrate Polymers, 2016, 136, 1137-1143.	5.1	21
98	Recent advances using gold nanoparticles as a promising multimodal tool for tissue engineering and regenerative medicine. Current Opinion in Solid State and Materials Science, 2017, 21, 92-112.	5.6	126
99	Chitosanâ€based hydrogels: recent design concepts to tailor properties and functions. Polymer International, 2017, 66, 981-998.	1.6	86
100	Development of hepatic blocks using human adipose tissue-derived stem cells through three-dimensional cell printing techniques. Journal of Materials Chemistry B, 2017, 5, 1098-1107.	2.9	14
101	The bioink: A comprehensive review on bioprintable materials. Biotechnology Advances, 2017, 35, 217-239.	6.0	770
102	Genipin-cross-linked poly(vinyl alcohol) for neural scaffold. Bioinspired, Biomimetic and Nanobiomaterials, 2017, 6, 191-198.	0.7	3
103	Chitosanâ€agarose scaffolds supports chondrogenesis of Human Wharton's Jelly mesenchymal stem cells. Journal of Biomedical Materials Research - Part A, 2017, 105, 1845-1855.	2.1	29
104	The fabrication of double-layered chitosan/gelatin/genipin nanosphere coating for sequential and controlled release of therapeutic proteins. Biofabrication, 2017, 9, 025028.	3.7	23
105	Chitosan/Î³-poly(glutamic acid) scaffolds with surface-modified albumin, elastin and poly- l -lysine for cartilage tissue engineering. Materials Science and Engineering C, 2017, 78, 265-277.	3.8	36
106	Guided differentiation and tissue regeneration of induced pluripotent stem cells using biomaterials. Journal of the Taiwan Institute of Chemical Engineers, 2017, 77, 41-53.	2.7	11
107	Biocompatibility of hydrogel-based scaffolds for tissue engineering applications. Biotechnology Advances, 2017, 35, 530-544.	6.0	579
108	Ribose mediated crosslinking of collagen-hydroxyapatite hybrid scaffolds for bone tissue regeneration using biomimetic strategies. Materials Science and Engineering C, 2017, 77, 594-605.	3.8	51
110	Control of Cell Alignment and Morphology by Redesigning ECMâ€Mimetic Nanotopography on Multilayer Membranes. Advanced Healthcare Materials, 2017, 6, 1601462.	3.9	32
111	Collagen and Its Modifications-Crucial Aspects with Concern to Its Processing and Analysis. Macromolecular Materials and Engineering, 2017, 302, 1600460.	1.7	52
112	Evaluation of cell interaction with polymeric biomaterials based on hyaluronic acid and chitosan. Journal of Materials Science: Materials in Medicine, 2017, 28, 68.	1.7	13

#	Article	IF	Citations
113	Biohybrid cardiac ECM-based hydrogels improve long term cardiac function post myocardial infarction. Acta Biomaterialia, 2017, 50, 220-233.	4.1	99
114	Application of acellular intima from porcine thoracic aorta in full-thickness skin wound healing in a rat model. Materials Science and Engineering C, 2017, 71, 1135-1144.	3.8	12
115	An application of ionic liquid for preparation of homogeneous collagen and alginate hydrogels for skin dressing. Journal of Molecular Liquids, 2017, 243, 720-725.	2.3	43
117	Chitosan: Application in tissue engineering and skin grafting. Journal of Polymer Research, 2017, 24, 1.	1.2	71
118	Biobased Composites for Medical and Industrial Applications. , 2017, , 291-339.		0
119	Accelerating effects of genipin-crosslinked small intestinal submucosa for defected gastric mucosa repair. Journal of Materials Chemistry B, 2017, 5, 7059-7071.	2.9	27
120	Incorporation of zinc oxide nanoparticles into chitosan-collagen 3D porous scaffolds: Effect on morphology, mechanical properties and cytocompatibility of 3D porous scaffolds. International Journal of Biological Macromolecules, 2017, 104, 1020-1029.	3.6	53
121	Lyophilized chitosan sponges. , 2017, , 239-253.		7
122	Investigation of different cross-linking approaches on 3D gelatin scaffolds for tissue engineering application: A comparative analysis. International Journal of Biological Macromolecules, 2017, 95, 1199-1209.	3.6	56
123	Formulation and in vitro and in vivo evaluation of a new osteoprotegerinâ€“chitosan gel for bone tissue regeneration. Journal of Biomedical Materials Research - Part A, 2017, 105, 398-407.	2.1	26
124	Pre-clinical and Clinical Management of Osteochondral Lesions. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2017, , 147-161.	0.7	5
125	Alginate- and gelatin-based bioactive photocross-linkable hybrid materials for bone tissue engineering. Carbohydrate Polymers, 2017, 157, 1714-1722.	5.1	62
126	Investigation of cell adhesion in chitosan membranes for peripheral nerve regeneration. Materials Science and Engineering C, 2017, 71, 1122-1134.	3.8	42
127	Collagen/chitosan composite scaffolds for bone and cartilage tissue engineering. , 2017, , 163-198.		10
128	Fabrication of Highly Crosslinked Gelatin Hydrogel and Its Influence on Chondrocyte Proliferation and Phenotype. Polymers, 2017, 9, 309.	2.0	62
129	The Bioink â^— â^—With contributions by Monika Hospodiuk and Madhuri Dey, The Pennsylvania State University.. , 2017, , 41-92.		3
130	Collagen-Based Scaffolds for Bone Tissue Engineering Applications. , 2017, , 187-224.		4
131	Engineering Niches for Cartilage Tissue Regeneration â^—. , 2017, , 531-546.		3

#	Article	IF	Citations
132	In situ formation of injectable chitosan-gelatin hydrogels through double crosslinking for sustained intraocular drug delivery. Materials Science and Engineering C, 2018, 88, 1-12.	3.8	103
133	Tuning of elasticity and surface properties of hydrogel cell culture substrates by simple chemical approach. Journal of Colloid and Interface Science, 2018, 524, 102-113.	5.0	26
134	Chitosan composite scaffolds for articular cartilage defect repair: a review. RSC Advances, 2018, 8, 3736-3749.	1.7	62
135	Unusual multiscale mechanics of biomimetic nanoparticle hydrogels. Nature Communications, 2018, 9, 181.	5.8	28
136	Controlled release of FGF-2 and BMP-2 in tissue engineered periosteum promotes bone repair in rats. Biomedical Materials (Bristol), 2018, 13, 025001.	1.7	26
137	Development of various composition multicomponent chitosan/fish collagen/glycerin 3D porous scaffolds: Effect on morphology, mechanical strength, biostability and cytocompatibility. International Journal of Biological Macromolecules, 2018, 111, 158-168.	3.6	32
138	Silver nanoparticles improve structural stability and biocompatibility of decellularized porcine liver. Artificial Cells, Nanomedicine and Biotechnology, 2018, 46, 273-284.	1.9	30
139	Graphene Oxideâ€”A Tool for the Preparation of Chemically Crosslinking Free Alginateâ€“Chitosanâ€“Collagen Scaffolds for Bone Tissue Engineering. ACS Applied Materials & Interfaces, 2018, 10, 12441-12452.	4.0	152
140	Strengthening injectable thermo-sensitive NIPAAm-g-chitosan hydrogels using chemical cross-linking of disulfide bonds as scaffolds for tissue engineering. Carbohydrate Polymers, 2018, 192, 308-316.	5.1	87
141	Is quercetin an alternative natural crosslinking agent to genipin for longâ€term dermal scaffolds implantation?. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e1716-e1724.	1.3	13
142	Evaluation of different crosslinking agents on hybrid biomimetic collagen-hydroxyapatite composites for regenerative medicine. International Journal of Biological Macromolecules, 2018, 106, 739-748.	3.6	48
143	Engineered tubular structures based on chitosan for tissue engineering applications. Journal of Biomaterials Applications, 2018, 32, 841-852.	1.2	12
144	A review on chitosan and its nanocomposites in drug delivery. International Journal of Biological Macromolecules, 2018, 109, 273-286.	3.6	796
145	Fabrication and characterization of 3D microtubular collagen scaffolds for peripheral nerve repair. Journal of Biomaterials Applications, 2018, 33, 541-552.	1.2	6
146	Decellularized orthopaedic tissue-engineered grafts: biomaterial scaffolds synthesised by therapeutic cells. Biomaterials Science, 2018, 6, 2798-2811.	2.6	41
147	Challenges in Fabrication of Tissue-Engineered Cartilage with Correct Cellular Colonization and Extracellular Matrix Assembly. International Journal of Molecular Sciences, 2018, 19, 2700.	1.8	32
148	Lactose-crosslinked fish gelatin-based porous scaffolds embedded with tetrahydrocurcumin for cartilage regeneration. International Journal of Biological Macromolecules, 2018, 117, 199-208.	3.6	22
149	The preparation and characterization of composite materials by incorporating microspheres into a collagen/hydroxyethyl cellulose matrix. Polymer Testing, 2018, 69, 350-358.	2.3	11

#	Article	IF	Citations
150	3D bioprinting of skin tissue: From pre-processing to final product evaluation. Advanced Drug Delivery Reviews, 2018, 132, 270-295.	6.6	122
151	Collagen Scaffolds in Cartilage Tissue Engineering and Relevant Approaches for Future Development. Tissue Engineering and Regenerative Medicine, 2018, 15, 673-697.	1.6	149
153	Collagen/Gelatin/Hydroxyethyl Cellulose Composites Containing Microspheres Based on Collagen and Gelatin: Design and Evaluation. Polymers, 2018, 10, 456.	2.0	37
154	Biomimetic approaches for tissue engineering. Journal of Biomaterials Science, Polymer Edition, 2018, 29, 1667-1685.	1.9	24
155	Modifying collagen with alendronate sodium for bone regeneration applications. RSC Advances, 2018, 8, 16762-16772.	1.7	9
156	Genotoxicity evaluation of the naturally-derived food colorant, gardenia blue, and its precursor, genipin. Food and Chemical Toxicology, 2018, 118, 695-708.	1.8	58
157	Praseodymiumâ€“Cobaltite-Reinforced Collagen as Biomimetic Scaffolds for Angiogenesis and Stem Cell Differentiation for Cutaneous Wound Healing. ACS Applied Bio Materials, 2019, 2, 3458-3472.	2.3	19
158	Genipin and EDC crosslinking of extracellular matrix hydrogel derived from human umbilical cord for neural tissue repair. Scientific Reports, 2019, 9, 10674.	1.6	86
159	Biodegradable polymer nanocomposites for tissue engineering: synthetic strategies and related applications. , 2019, , 157-198.		1
160	Hardness maps analysis of the layered nanocomposites for tissue repair of the cardiovascular system. AIP Conference Proceedings, 2019, , .	0.3	1
161	The effect of different cross-linking conditions of EDC/NHS on type II collagen scaffolds: an in vitro evaluation. Cell and Tissue Banking, 2019, 20, 557-568.	0.5	25
162	Fixation and Fixatives: Roles and Functionsâ€”A Short Review. Dental Journal of Advance Studies, 2019, 07, 051-055.	0.2	19
163	Hybrid and Composite Scaffolds Based on Extracellular Matrices for Cartilage Tissue Engineering. Tissue Engineering - Part B: Reviews, 2019, 25, 202-224.	2.5	58
164	Overview of Proteinâ€Based Biopolymers for Biomedical Application. Macromolecular Chemistry and Physics, 2019, 220, 1900126.	1.1	50
165	Scaffolds for cartilage tissue engineering. , 2019, , 211-244.		3
166	Characterization of silver nanoparticle-modified decellularized rat esophagus for esophageal tissue engineering: Structural properties and biocompatibility. Journal of Bioscience and Bioengineering, 2019, 128, 613-621.	1.1	13
167	Fabrication of biocompatible porous scaffolds based on hydroxyapatite/collagen/chitosan composite for restoration of defected maxillofacial mandible bone. Progress in Biomaterials, 2019, 8, 137-154.	1.8	47
168	The Short-Term Safety Evaluation of Corneal Crosslinking Agent-Genipin. Ophthalmic Research, 2019, 62, 141-149.	1.0	8

#	Article	IF	Citations
169	Preparation and characterization of biomedical collagenâ€“chitosan scaffolds with entrapped ibuprofen and silver nanoparticles. Polymer Engineering and Science, 2019, 59, 2479-2487.	1.5	27
170	Chondrogenesis of human adipose-derived mesenchymal stromal cells on the [devitalized costal cartilage matrix/poly(vinyl alcohol)/fibrin] hybrid scaffolds. European Polymer Journal, 2019, 118, 528-541.	2.6	27
171	Bioprinted scaffolds. , 2019, , 35-60.		6
172	Fabrication and characterization of low-cost freeze-gelated chitosan/collagen/hydroxyapatite hydrogel nanocomposite scaffold. International Journal of Polymer Analysis and Characterization, 2019, 24, 191-203.	0.9	35
173	Probing visible light induced photochemical stabilization of collagen in green solvent medium. International Journal of Biological Macromolecules, 2019, 131, 779-786.	3.6	14
174	Chitosan based thermosensitive injectable hydrogels for controlled delivery of loxoprofen: development, characterization and in-vivo evaluation. International Journal of Biological Macromolecules, 2019, 129, 233-245.	3.6	60
175	Layer-by-layer assembly as a robust method to construct extracellular matrix mimic surfaces to modulate cell behavior. Progress in Polymer Science, 2019, 92, 1-34.	11.8	54
176	Natural polymers for bone repair. , 2019, , 199-232.		11
177	Resorbable polymer matrices: chitosan-substituted collagen-based biomaterials. , 2019, , 245-278.		0
178	Dual Crosslinked Collagen/Chitosan Film for Potential Biomedical Applications. Polymers, 2019, 11, 2094.	2.0	49
179	Chitosan scaffolds for cartilage regeneration: influence of different ionic crosslinkers on biomaterial properties. International Journal of Polymeric Materials and Polymeric Biomaterials, 2019, 68, 936-945.	1.8	24
180	Controlled release of ascorbic acid from genipin-crosslinked gelatin matrices under moving boundary conditions. Food Hydrocolloids, 2019, 89, 171-179.	5.6	34
181	Macrophage Polarization in Response to Collagen Scaffold Stiffness Is Dependent on Cross-Linking Agent Used To Modulate the Stiffness. ACS Biomaterials Science and Engineering, 2019, 5, 544-552.	2.6	60
182	Polymeric 3D scaffolds for tissue regeneration: Evaluation of biopolymer nanocomposite reinforced with cellulose nanofibrils. Materials Science and Engineering C, 2019, 94, 867-878.	3.8	37
183	Novel bioactive porous starchâ€“siloxane matrix for bone regeneration: Physicochemical, mechanical, and in vitro properties. Biotechnology and Applied Biochemistry, 2019, 66, 43-52.	1.4	26
184	Structural, mechanical and swelling characteristics of 3D scaffolds from chitosan-agarose blends. Carbohydrate Polymers, 2019, 204, 59-67.	5.1	100
185	Dual crosslinking strategy to generate mechanically viable cell-laden printable constructs using methacrylated collagen bioinks. Materials Science and Engineering C, 2020, 107, 110290.	3.8	32
186	Sterilized chitosanâ€based composite hydrogels: Physicochemical characterization and in vitro cytotoxicity. Journal of Biomedical Materials Research - Part A, 2020, 108, 81-93.	2.1	28

#	Article	IF	Citations
187	Development and characterization of sodium caseinate edible films cross-linked with genipin. LWT - Food Science and Technology, 2020, 118, 108813.	2.5	42
188	Bioactive yet antimicrobial structurally stable collagen/chitosan/lysine functionalized hyaluronic acid â€“ based injectable hydrogels for potential bone tissue engineering applications. International Journal of Biological Macromolecules, 2020, 155, 938-950.	3.6	45
189	Chitosan as a potential alternative to collagen for the development of genipin-crosslinked scaffolds. Reactive and Functional Polymers, 2020, 146, 104414.	2.0	15
190	Synthesis of chitosan aerogels as promising carriers for drug delivery: A review. Carbohydrate Polymers, 2020, 231, 115744.	5.1	177
191	Collagen and chitosan blends for 3D bioprinting: A rheological and printability approach. Polymer Testing, 2020, 82, 106297.	2.3	56
192	Meniscus-Derived Matrix Bioscaffolds: Effects of Concentration and Cross-Linking on Meniscus Cellular Responses and Tissue Repair. International Journal of Molecular Sciences, 2020, 21, 44.	1.8	15
193	Polymeric scaffold of Gallic acid loaded chitosan nanoparticles infused with collagen-fibrin for wound dressing application. International Journal of Biological Macromolecules, 2020, 165, 930-947.	3.6	46
194	Investigation on Mecynorhina torquata Drury, 1782 (Coleoptera, Cetoniidae, Goliathini) cuticle: Surface properties, chitin and chitosan extraction. International Journal of Biological Macromolecules, 2020, 164, 1164-1173.	3.6	8
195	Mimicking Natural Microenvironments: Design of 3D-Aligned Hybrid Scaffold for Dentin Regeneration. Frontiers in Bioengineering and Biotechnology, 2020, 8, 836.	2.0	10
196	An edible genipinâ€based sensor for biogenic amine detection. Journal of Chemical Technology and Biotechnology, 2022, 97, 830-836.	1.6	14
197	Advancement of Nanobiomaterials to Deliver Natural Compounds for Tissue Engineering Applications. International Journal of Molecular Sciences, 2020, 21, 6752.	1.8	15
198	Collagen-Based Materials Modified by Phenolic Acidsâ€”A Review. Materials, 2020, 13, 3641.	1.3	30
199	Plant based cross-linkers for tissue engineering applications. Journal of Biomaterials Applications, 2021, 36, 76-94.	1.2	14
200	Regeneration of skeletal system with genipin crosslinked biomaterials. Journal of Tissue Engineering, 2020, 11, 204173142097486.	2.3	47
201	Development and physicochemical analysis of genipin-crosslinked gelatine sponge as a potential resorbable nasal pack. Journal of Biomaterials Science, Polymer Edition, 2020, 31, 1722-1740.	1.9	8
202	Fabrication, applications and challenges of natural biomaterials in tissue engineering. Applied Materials Today, 2020, 20, 100656.	2.3	78
203	Current methods of collagen cross-linking: Review. International Journal of Biological Macromolecules, 2020, 161, 550-560.	3.6	143
204	Injectable thermosensitive hybrid hydrogel containing graphene oxide and chitosan as dental pulp stem cells scaffold for bone tissue engineering. International Journal of Biological Macromolecules, 2020, 162, 1338-1357.	3.6	97

#	Article	IF	Citations
205	Blending Gelatin and Cellulose Nanofibrils: Biocomposites with Tunable Degradability and Mechanical Behavior. Nanomaterials, 2020, 10, 1219.	1.9	14
206	Wet-electrospun PHBV nanofiber reinforced carboxymethyl chitosan-silk hydrogel composite scaffolds for articular cartilage repair. Journal of Biomaterials Applications, 2020, 35, 515-531.	1.2	22
207	The Use of Genipin as an Effective, Biocompatible, Antiâ€Inflammatory Crossâ€Linking Method for Nerve Guidance Conduits. Advanced Biology, 2020, 4, e1900212.	3.0	18
208	Chitosan based bioactive materials in tissue engineering applications-A review. Bioactive Materials, 2020, 5, 164-183.	8.6	326
209	Chitosan Extraction from Goliathus orientalis Moser, 1909: Characterization and Comparison with Commercially Available Chitosan. Biomimetics, 2020, 5, 15.	1.5	7
210	Gardenia jasminoides Ellis: Ethnopharmacology, phytochemistry, and pharmacological and industrial applications of an important traditional Chinese medicine. Journal of Ethnopharmacology, 2020, 257, 112829.	2.0	122
211	Chemie der Chitosanâ€Aerogele: Lenkung der dreidimensionalen Poren fÃ¼r maÃŸgeschneiderte Anwendungen. Angewandte Chemie, 2021, 133, 9913-9938.	1.6	0
212	Chemistry of Chitosan Aerogels: Threeâ€Dimensional Pore Control for Tailored Applications. Angewandte Chemie - International Edition, 2021, 60, 9828-9851.	7.2	98
214	Cell-derived decellularized extracellular matrix scaffolds for articular cartilage repair. International Journal of Artificial Organs, 2021, 44, 269-281.	0.7	19
215	Post-decellularization techniques ameliorate cartilage decellularization process for tissue engineering applications. Journal of Tissue Engineering, 2021, 12, 204173142098356.	2.3	20
216	Chitosan-based materials for supercapacitor applications: a review. Journal of Materials Chemistry A, 2021, 9, 17592-17642.	5.2	74
217	Influences of Molecular Weights on Physicochemical and Biological Properties of Collagen-Alginate Scaffolds. Marine Drugs, 2021, 19, 85.	2.2	5
218	Biopolymer Matrices Based on Chitosan and Fibroin: A Review Focused on Methods for Studying Surface Properties. Polysaccharides, 2021, 2, 154-167.	2.1	4
219	Emulsion-free chitosanâ€“genipin microgels for growth plate cartilage regeneration. Journal of Biomaterials Applications, 2021, 36, 289-296.	1.2	16
220	Low-temperature 3D printing of collagen and chitosan composite for tissue engineering. Materials Science and Engineering C, 2021, 123, 111963.	3.8	64
221	Materials for creating tissue-engineered constructs using 3D bioprinting: cartilaginous and soft tissue restoration. Vestnik Transplantologii I Iskusstvennykh Organov, 2021, 23, 60-74.	0.1	3
222	Genipinâ€crosslinked chitosan hydrogels: Preliminary evaluation of the in vitro biocompatibility and biodegradation. Journal of Applied Polymer Science, 2021, 138, 50848.	1.3	23
223	Self-Assembling Polypeptide Hydrogels as a Platform to Recapitulate the Tumor Microenvironment. Cancers, 2021, 13, 3286.	1.7	11

#	Article	IF	Citations
224	Chitosan-based blends for biomedical applications. International Journal of Biological Macromolecules, 2021, 183, 1818-1850.	3.6	97
225	The versatility of collagen and chitosan: From food to biomedical applications. Food Hydrocolloids, 2021, 116, 106633.	5.6	83
226	Genipin in an Ex Vivo Corneal Model of Bacterial and Fungal Keratitis. Translational Vision Science and Technology, 2021, 10, 31.	1.1	10
227	Recent advances of emerging green chitosan-based biomaterials with potential biomedical applications: A review. Carbohydrate Research, 2021, 506, 108368.	1.1	90
228	Using type III recombinant human collagen to construct a series of highly porous scaffolds for tissue regeneration. Colloids and Surfaces B: Biointerfaces, 2021, 208, 112139.	2.5	13
229	Lif KabaÄŸÄ± Takviye EdilmiÅŸ Kitosan-Ä°pek Hidrojel Kompozit Doku Ä°skelelerinin KÄ±kÄ±rdak Doku HasarÄ± Tedavisinde KullanÄ±mÄ±nÄ±n AraÅŸtÄ±rÄ±lmasÄ±. Deu Muhendislik Fakultesi Fen Ve Muhendislik, 2021, 23, 937-950.	0.1	0
230	Chapter 3. Biomimetic and Collagen-based Biomaterials for Biomedical Applications. RSC Soft Matter, 2021, , 61-87.	0.2	1
231	Chitosan-Based Biomaterials: Bone Regeneration and Replacements. , 0, , 1536-1545.		1
232	Nanostructured 3D Constructs Based on Chitosan and Chondroitin Sulphate Multilayers for Cartilage Tissue Engineering. PLoS ONE, 2013, 8, e55451.	1.1	105
234	The Cytocompatibility of Genipin-Crosslinked Silk Fibroin Films. Journal of Biomaterials and Nanobiotechnology, 2013, 04, 213-221.	1.0	20
235	Chitosan-Based Hydrogels for Tissue Engineering. , 2021, , 519-571.		2
236	Polysaccharide-Based Polymer Gels. Gels Horizons: From Science To Smart Materials, 2018, , 147-229.	0.3	3
237	Natural polymeric biomaterials for tissue engineering. , 2022, , 75-110.		0
238	Genipin-Based Crosslinking of Jellyfish Collagen 3D Hydrogels. Gels, 2021, 7, 238.	2.1	16
239	Effect of Chitosan Deacetylation on Its Affinity to Type III Collagen: A Molecular Dynamics Study. Materials, 2022, 15, 463.	1.3	7
240	Synergistic performance of collagen-g-chitosan-glucan fiber biohybrid scaffold with tunable properties. International Journal of Biological Macromolecules, 2022, 202, 671-680.	3.6	8
241	Chitosan-collagen-hydroxyapatite membranes for tissue engineering. Journal of Materials Science: Materials in Medicine, 2022, 33, 18.	1.7	37
242	Chitin and chitosan-based blends and composites. , 2022, , 123-203.		2

#	Article	IF	Citations
243	Methacrylated Cartilage ECM-Based Hydrogels as Injectables and Bioinks for Cartilage Tissue Engineering. Biomolecules, 2022, 12, 216.	1.8	24
244	Development and in vitro assessment of a bi-layered chitosan-nano-hydroxyapatite osteochondral scaffold. Carbohydrate Polymers, 2022, 282, 119126.	5.1	29
246	The development of a 3D printable chitosan-based copolymer with tunable properties for dentoalveolar regeneration. Carbohydrate Polymers, 2022, 289, 119441.	5.1	4
247	In vitro probing of oxidized inulin cross-linked collagen-ZrO2 hybrid scaffolds for tissue engineering applications. Carbohydrate Polymers, 2022, 289, 119458.	5.1	15
248	Collagen/Chitosan Gels Cross-Linked with Genipin for Wound Healing in Mice with Induced Diabetes. Materials, 2022, 15, 15.	1.3	14
249	Genipin Cross-Linked Decellularized Nucleus Pulposus Hydrogel-Like Cell Delivery System Induces Differentiation of ADSCs and Retards Intervertebral Disc Degeneration. Frontiers in Bioengineering and Biotechnology, 2021, 9, 807883.	2.0	14
250	Application of Collagen and Mesenchymal Stem Cells in Regenerative Dentistry. Current Stem Cell Research and Therapy, 2022, 17, 606-620.	0.6	12
251	Degradable 2-Hydroxyethyl Methacrylate/Gelatin/Alginate Hydrogels Infused by Nanocolloidal Graphene Oxide as Promising Drug Delivery and Scaffolding Biomaterials. Gels, 2022, 8, 22.	2.1	13
252	Gelatin-based electrospun and lyophilized scaffolds with nano scale feature for bone tissue engineering application: review. Journal of Biomaterials Science, Polymer Edition, 2022, 33, 1704-1758.	1.9	10
254	Physical and Natural Crosslinking Approaches on Three-Dimensional Gelatin Microspheres for Cartilage Regeneration. Tissue Engineering - Part C: Methods, 2022, 28, 557-569.	1.1	2
255	Fabrication of 3D Printed poly(lactic acid) strut and wet-electrospun cellulose nano fiber reinforced chitosan-collagen hydrogel composite scaffolds for meniscus tissue engineering. Journal of Biomaterials Applications, 2022, 37, 683-697.	1.2	12
256	Application Progress of Modified Chitosan and Its Composite Biomaterials for Bone Tissue Engineering. International Journal of Molecular Sciences, 2022, 23, 6574.	1.8	11
257	Engineered artificial articular cartilage made of decellularized extracellular matrix by mechanical and IGF-1 stimulation. , 2022, 139, 213019.		13
258	Effect of the Synthesized Pyramidal Rod and Star-Like Zinc Oxide (ZnO) on the Properties of Polyvinyl Alcohol/Chitosan (PVA/CS) Electrospun Nanofibers. SSRN Electronic Journal, 0, , .	0.4	0
259	Synthesis and characterization of Nâ€rich fluorescent bioâ€dots as a reporter in the design of dualâ€labeled FRET probe for TaqMan PCR: A feasibility study. Biotechnology and Applied Biochemistry, 2023, 70, 645-658.	1.4	0
260	Loofah-chitosan and poly (â^'3-hydroxybutyrate-co-3-hydroxyvalerate) (PHBV) based hydrogel scaffolds for meniscus tissue engineering applications. International Journal of Biological Macromolecules, 2022, 221, 1171-1183.	3.6	10
261	The effect of crosslinking concentration, time, temperature and pH on the characteristic of genipin-crosslinked small intestinal submucosa. Materials Today Communications, 2022, 33, 104482.	0.9	1
262	Effect of the Synthesized Pyramidal Rod and Star-Like Zinc Oxide (ZnO) on the Properties of Polyvinyl Alcohol/Chitosan (PVA/CS) Electrospun Nanofibers. SSRN Electronic Journal, 0, , .	0.4	0

#	Article	IF	Citations
263	Effect of the Synthesized Pyramidal Rod and Star-Like Zinc Oxide (ZnO) on the Properties of Polyvinyl Alcohol/Chitosan (PVA/CS) Electrospun Nanofibers. SSRN Electronic Journal, 0, , .	0.4	0
264	Electrospun Gelatin Nanofibresâ€"Fabrication, Cross-linking and Biomedical Applications: A Review. , 2023, 1, 553-568.		3
265	Degradation and biocompatibility of genipin crosslinked polyelectrolyte films on biomedical magnesium alloy via layer-by-layer assembly. Progress in Organic Coatings, 2023, 175, 107372.	1.9	3
266	A kidney proximal tubule model to evaluate effects of basement membrane stiffening on renal tubular epithelial cells. Integrative Biology (United Kingdom), 0, , .	0.6	2
267	Collagen Type IIâ€"Chitosan Interactions as Dependent on Hydroxylation and Acetylation Inferred from Molecular Dynamics Simulations. Molecules, 2023, 28, 154.	1.7	2
268	Developing small-diameter vascular grafts with human amniotic membrane: long-term evaluation of transplantation outcomes in a small animal model. Biofabrication, 2023, 15, 025004.	3.7	4
269	Development of Decellularized Fish Skin Scaffold Decorated with Biosynthesized Silver Nanoparticles for Accelerated Burn Wound Healing. International Journal of Biomaterials, 2023, 2023, 1-18.	1.1	1
270	Recent development in multizonal scaffolds for osteochondral regeneration. Bioactive Materials, 2023, 25, 122-159.	8.6	7
271	Chitosan-based biomaterials in biomedical applications. , 2023, , 363-378.		0
272	A Pilot Study to Evaluate Genipin in Staphylococcus aureus and Pseudomonas aeruginosa Keratitis Models: Modulation of Pro-Inflammatory Cytokines and Matrix Metalloproteinases. International Journal of Molecular Sciences, 2023, 24, 6904.	1.8	1
288	Biomedical Applications of Chitin, Chitosan, Their Derivatives, and Processing By-Products from Fish Waste. , 2024, , 279-300.		0