Shahin Bonakdar

List of Publications by Year
in descending order

118 papers	3,538 citations	136950 32 h-index	168389 53 g-index
123 all docs	123 docs citations	123 times ranked	5625 citing authors

#	Article	IF	Citations
1	Enhanced mechanical properties of thermosensitive chitosan hydrogel by silk fibers for cartilage tissue engineering. Materials Science and Engineering C, 2013, 33, 4786-4794.	7.3	197
2	Manufacturing of biodegradable polyurethane scaffolds based on polycaprolactone using a phase separation method: physical properties and in vitro assay. International Journal of Nanomedicine, 2011, 6, 2375.	6.7	150
3	Porous starch/cellulose nanofibers composite prepared by salt leaching technique for tissue engineering. Carbohydrate Polymers, 2014, 108, 232-238.	10.2	143
4	Preparation and characterization of polyvinyl alcohol hydrogels crosslinked by biodegradable polyurethane for tissue engineering of cartilage. Materials Science and Engineering C, 2010, 30, 636-643.	7.3	111
5	Cell-Imprinted Substrates Direct the Fate of Stem Cells. ACS Nano, 2013, 7, 8379-8384.	14.6	110
6	Onâ€Chip Fabrication of Paclitaxelâ€Loaded Chitosan Nanoparticles for Cancer Therapeutics. Advanced Functional Materials, 2014, 24, 432-441.	14.9	103
7	Electrospun poly(hydroxybutyrate)/chitosan blend fibrous scaffolds for cartilage tissue engineering. Journal of Applied Polymer Science, 2016, 133, .	2.6	98
8	Regeneration of meniscus tissue using adipose mesenchymal stem cells-chondrocytes co-culture on a hybrid scaffold: InÂvivo study. Biomaterials, 2017, 126, 18-30.	11.4	96
9	Multiphysics Flow Modeling and in Vitro Toxicity of Iron Oxide Nanoparticles Coated with Poly(vinyl) Tj ETQq1 1 0.784314 rgBT /Over	3.1	91
10	An efficient method of SPION synthesis coated with third generation PAMAM dendrimer. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 431, 18-26.	4.7	74
11	Cell-Imprinted Substrates Act as an Artificial Niche for Skin Regeneration. ACS Applied Materials & Interfaces, 2014, 6, 13280-13292.	8.0	70
12	Improvement of islet engrafts by enhanced angiogenesis and microparticle-mediated oxygenation. Biomaterials, 2016, 89, 157-165.	11.4	69
13	Graphene oxide incorporated polycaprolactone/chitosan/collagen electrospun scaffold: Enhanced osteogenic properties for bone tissue engineering. Artificial Organs, 2019, 43, E264-E281.	1.9	69
14	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.	3.6	67
15	Regulation of stem cell fate by nanomaterial substrates. Nanomedicine, 2015, 10, 829-847.	3.3	65
16	Investigation on bioactivity and cytotoxicity of mesoporous nano-composite MCM-48/hydroxyapatite for ibuprofen drug delivery. Ceramics International, 2014, 40, 7355-7362.	4.8	61
17	Key components of engineering vascularized 3-dimensional bioprinted bone constructs. Translational Research, 2020, 216, 57-76.	5.0	61
18	Development of electrospun poly (vinyl alcohol)â€based bionanocomposite scaffolds for bone tissue engineering. Journal of Biomedical Materials Research - Part A, 2018, 106, 1111-1120.	4.0	59

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19	Hydrothermal synthesis and characterization of hydroxyapatite and fluorhydroxyapatite nano-size powders. Biomedical Materials (Bristol), 2010, 5, 045004.	3.3	55
20	Cell-Imprinted Substrates Modulate Differentiation, Redifferentiation, and Transdifferentiation. ACS Applied Materials & Interfaces, 2016, 8, 13777-13784.	8.0	52
21	In-vivo characterization of a 3D hybrid scaffold based on PCL/decellularized aorta for tracheal tissue engineering. Materials Science and Engineering C, 2017, 81, 74-83.	7.3	50
22	Fabrication of Nanofibrous PVA/Alginateâ€Sulfate Substrates for Growth Factor Delivery. Journal of Biomedical Materials Research - Part A, 2019, 107, 403-413.	4.0	50
23	Preparation of multifunctional Janus nanoparticles on the basis of SPIONs as targeted drug delivery system. International Journal of Pharmaceutics, 2019, 559, 1-12.	5.2	46
24	Studying the Potential Application of Electrospun Polyethylene Terephthalate/Graphene Oxide Nanofibers as Electroconductive Cardiac Patch. Macromolecular Materials and Engineering, 2019, 304, 1900187.	3.6	44
25	Facile Fabrication of Egg White Macroporous Sponges for Tissue Regeneration. Advanced Healthcare Materials, 2015, 4, 2281-2290.	7.6	41
26	Fabrication and characterization of ovalbumin films for wound dressing applications. Materials Science and Engineering C, 2015, 48, 158-164.	7.3	41
27	Injectable polyethylene glycol-laponite composite hydrogels as articular cartilage scaffolds with superior mechanical and rheological properties. International Journal of Polymeric Materials and Polymeric Biomaterials, 2017, 66, 105-114.	3.4	40
28	Preparation and in vitro evaluation of polycaprolactone/PEG/bioactive glass nanopowders nanocomposite membranes for GTR/GBR applications. Materials Science and Engineering C, 2018, 90, 236-247.	7.3	40
29	Fabrication of amineâ€decorated nonspherical microparticles with calcium peroxide cargo for controlled release of oxygen. Journal of Biomedical Materials Research - Part A, 2020, 108, 136-147.	4.0	40
30	An engineered cell-imprinted substrate directs osteogenic differentiation in stem cells. Biomaterials Science, 2018, 6, 189-199.	5.4	38
31	Surface modification of orthopedic implants by optimized fluorine-substituted hydroxyapatite coating: Enhancing corrosion behavior and cell function. Ceramics International, 2020, 46, 2139-2146.	4.8	37
32	Fabrication of biocompatible titanium scaffolds using space holder technique. Journal of Materials Science: Materials in Medicine, 2012, 23, 2483-2488.	3.6	35
33	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.	3.4	35
34	Healing potential of mesenchymal stem cells cultured on a collagen-based scaffold for skin regeneration. Iranian Biomedical Journal, 2012, 16, 68-76.	0.7	32
35	Modification of PCL Electrospun Nanofibrous Mat WithCalendula officinalisExtract for Improved Interaction With Cells. International Journal of Polymeric Materials and Polymeric Biomaterials, 2015, 64, 459-464.	3.4	31
36	Human Bone Marrow Mesenchymal Stem Cell Conditioned Medium Promotes Wound Healing in Deep Second-Degree Burns in Male Rats. Cells Tissues Organs, 2018, 206, 317-329.	2.3	31

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37	Engineered substrates with imprinted cell-like topographies induce direct differentiation of adipose-derived mesenchymal stem cells into Schwann cells. Artificial Cells, Nanomedicine and Biotechnology, 2019, 47, 1022-1035.	2.8	31
38	Biological evaluation of polyvinyl alcohol hydrogel crosslinked by polyurethane chain for cartilage tissue engineering in rabbit model. Journal of Materials Science: Materials in Medicine, 2013, 24, 2449-2460.	3.6	30
39	Cell-Imprint Surface Modification by Contact Photolithography-Based Approaches: Direct-Cell Photolithography and Optical Soft Lithography Using PDMS Cell Imprints. ACS Applied Materials & Interfaces, 2019, 11, 10559-10566.	8.0	30
40	Morphology, proliferation, and gene expression of gingival fibroblasts on Laser-Lok, titanium, and zirconia surfaces. Lasers in Medical Science, 2016, 31, 863-873.	2.1	29
41	Synthesis and characterization of glycyrrhizic acid coated iron oxide nanoparticles for hyperthermia applications. Materials Science and Engineering C, 2017, 77, 1060-1067.	7.3	29
42	Analysis of Healing Effect of Alginate Sulfate Hydrogel Dressing Containing Antimicrobial Peptide on Wound Infection Caused by Methicillin-Resistant Staphylococcus aureus. Jundishapur Journal of Microbiology, 2015, 8, e28320.	0.5	27
43	Shape selective silver nanostructures decorated amine-functionalized graphene: A promising antibacterial platform. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 545, 101-109.	4.7	27
44	A biomaterials approach to Schwann cell development in neural tissue engineering. Journal of Biomedical Materials Research - Part A, 2019, 107, 2425-2446.	4.0	27
45	Nanofiber protein adsorption affected by electrospinning physical processing parameters. Journal of the Iranian Chemical Society, 2015, 12, 1089-1097.	2.2	26
46	Incorporation of Nanoalumina Improves Mechanical Properties and Osteogenesis of Hydroxyapatite Bioceramics. ACS Biomaterials Science and Engineering, 2018, 4, 1324-1336.	5.2	26
47	Biomimetic antifouling PDMS surface developed via well-defined polymer brushes for cardiovascular applications. European Polymer Journal, 2018, 106, 305-317.	5.4	26
48	Effects of Hydrostatic Pressure on Biosynthetic Activity during Chondrogenic Differentiation of MSCs in Hybrid Scaffolds. International Journal of Artificial Organs, 2014, 37, 142-148.	1.4	25
49	Design and fabrication of a nanofibrous polycaprolactone tubular nerve guide for peripheral nerve tissue engineering using a two-pole electrospinning system. Biomedical Materials (Bristol), 2016, 11, 025017.	3.3	25
50	Modification of PDMS to fabricate PLGA microparticles by a double emulsion method in a single microfluidic device. Lab on A Chip, 2016, 16, 2596-2600.	6.0	25
51	Terbinafine-loaded wound dressing for chronic superficial fungal infections. Materials Science and Engineering C, 2017, 73, 130-136.	7.3	25
52	Effect of magnesium substitution on structural and biological properties of synthetic hydroxyapatite powder. Materials Express, 2015, 5, 41-48.	0.5	24
53	Oxygen-releasing nanofibers for breathable bone tissue engineering application. Journal of Biomaterials Applications, 2020, 35, 72-82.	2.4	24
54	Preparation and evaluation of chitosan-gelatin composite scaffolds modified with chondroitin-6-sulphate. International Journal of Materials Research, 2010, 101, 1281-1285.	0.3	23

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55	Silk fibroinâ€chondroitin sulfateâ€alginate porous scaffolds: Structural properties and in vitro studies. Journal of Applied Polymer Science, 2014, 131, .	2.6	23
56	A new injectable biphasic hydrogel based on partially hydrolyzed polyacrylamide and nanohydroxyapatite as scaffold for osteochondral regeneration. RSC Advances, 2015, 5, 9089-9096.	3.6	22
57	Electrosprayed cefazolinâ€loaded niosomes onto electrospun chitosan nanofibrous membrane for wound healing applications. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, 110, 1814-1826.	3.4	22
58	A comparison between ultrasonic bath and direct sonicator on osteochondral tissue decellularization. Journal of Medical Signals and Sensors, 2019, 9, 227.	1.0	21
59	Induction of Chondrogenic Differentiation in Human Mesenchymal Stem Cells Cultured on Human Demineralized Bone Matrix Scaffold under Hydrostatic Pressure. Tissue Engineering and Regenerative Medicine, 2019, 16, 69-80.	3.7	20
60	Three-dimensional printing of polycaprolactone/hydroxyapatite bone tissue engineering scaffolds mechanical properties and biological behavior. Journal of Materials Science: Materials in Medicine, 2022, 33, 31.	3.6	20
61	Incorporation of chitosan nanoparticles into silk fibroin-based porous scaffolds: Chondrogenic differentiation of stem cells. International Journal of Polymeric Materials and Polymeric Biomaterials, 2016, 65, 202-209.	3.4	19
62	Highâ€strength functionalized pectin/fibroin hydrogel with tunable properties: A structureâ€“property relationship study. Journal of Applied Polymer Science, 2020, 137, 48859.	2.6	19
63	Fish cartilage: A promising source of biomaterial for biological scaffold fabrication in cartilage tissue engineering. Journal of Biomedical Materials Research - Part A, 2021, 109, 1737-1750.	4.0	19
64	Macroporous scaffold surface modified with biological macromolecules and piroxicam-loaded gelatin nanofibers toward meniscus cartilage repair. International Journal of Biological Macromolecules, 2021, 183, 1327-1345.	7.5	18
65	Electrospun Skin Tissue Engineering Scaffolds Based on Polycaprolactone/Hyaluronic Acid/L-ascorbic Acid. Fibers and Polymers, 2021, 22, 19-29.	2.1	17
66	Coaxial <scp>3D</scp> bioprinting of triâ€polymer scaffolds to improve the osteogenic and vasculogenic potential of cells in coâ€culture models. Journal of Biomedical Materials Research - Part A, 2022, 110, 1077-1089.	4.0	17
67	Response of Human Mesenchymal Stem Cells to Patterned and Randomly Oriented Poly(Vinyl Alcohol) Nano-fibrous Scaffolds Surface-Modified with Arg-Gly-Asp (RGD) Ligand. Applied Biochemistry and Biotechnology, 2013, 171, 1513-1524.	2.9	16
68	Evaluation of the chondrogenic differentiation of mesenchymal stem cells on hybrid biomimetic scaffolds. Journal of Applied Polymer Science, 2014, 131, .	2.6	16
69	Evaluation of cell viability and T2 relaxivity of fluorescein conjugated SPION-PAMAM third generation nanodendrimers for bioimaging. Materials Science and Engineering C, 2016, 62, 544-552.	7.3	16
70	The interaction of plasma proteins with nano-size fluoride-substituted apatite powders. Ceramics International, 2013, 39, 6145-6152.	4.8	15
71	In Situ Forming Hydrogel Based on Chondroitin Sulfateâ€“Hydroxyapatite for Bone Tissue Engineering. International Journal of Polymeric Materials and Polymeric Biomaterials, 2015, 64, 919-926.	3.4	15
72	Sustained release of TGF-Î²1 via genetically-modified cells induces the chondrogenic differentiation of mesenchymal stem cells encapsulated in alginate sulfate hydrogels. Journal of Materials Science: Materials in Medicine, 2019, 30, 7.	3.6	15

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73	Tenocyte-imprinted substrate: a topography-based inducer for tenogenic differentiation in adipose tissue-derived mesenchymal stem cells. Biomedical Materials (Bristol), 2020, 15, 035014.	3.3	15
74	Distinguishment of populated metastatic cancer cells from primary ones based on their invasion to endothelial barrier by biosensor arrays fabricated on nanoroughened poly(methyl methacrylate). Biosensors and Bioelectronics, 2018, 118, 51-57.	10.1	14
75	An integrated microfluidic device for stem cell differentiation based on cell-imprinted substrate designed for cartilage regeneration in a rabbit model. Materials Science and Engineering C, 2021, 121, 111794.	7.3	14
76	The Effect of Physical Cues on the Stem Cell Differentiation. Current Stem Cell Research and Therapy, 2019, 14, 268-277.	1.3	14
77	Sensitivity of biochemical test in comparison with other methods for the detection of mycoplasma contamination in human and animal cell lines stored in the National Cell Bank of Iran. Cytotechnology, 2014, 66, 861-873.	1.6	13
78	Real-time PCR assay is superior to other methods for the detection of mycoplasma contamination in the cell lines of the National Cell Bank of Iran. Cytotechnology, 2016, 68, 1063-1080.	1.6	13
79	Coated urinary catheter by PEG/PVA/gentamicin with drug delivery capability against hospital infection. Iranian Polymer Journal (English Edition), 2013, 22, 75-83.	2.4	12
80	Cellâ€“cell interaction in a coculture system consisting of <scp>CRISPR</scp>/Cas9 mediated <scp>GFP</scp> knockâ€in <scp>HUVECs</scp> and <scp>MG</scp>â€63 cells in <scp>alginateâ€GelMA</scp> based nanocomposites hydrogel as a <scp>3D</scp> scaffold. Journal of Biomedical Materials Research - Part A, 2020, 108, 1596-1606.	4.0	12
81	Neural priming of adipose-derived stem cells by cell-imprinted substrates*. Biofabrication, 2021, 13, 035009.	7.1	12
82	Passive permeability assay of doxorubicin through model cell membranes under cancerous and normal membrane potential conditions. European Journal of Pharmaceutics and Biopharmaceutics, 2020, 146, 133-142.	4.3	11
83	Evaluation of alginate modification effect on cell-matrix interaction, mechanotransduction and chondrogenesis of encapsulated MSCs. Cell and Tissue Research, 2020, 381, 255-272.	2.9	10
84	A microfabricated platform for the study of chondrogenesis under different compressive loads. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 78, 404-413.	3.1	9
85	Chondrogenic stimulation in mesenchymal stem cells using scaffoldâ€based sustained release of plateletâ€rich plasma. Journal of Applied Polymer Science, 2021, 138, 50075.	2.6	8
86	A facile way to synthesize a photocrosslinkable methacrylated chitosan hydrogel for biomedical applications. International Journal of Polymeric Materials and Polymeric Biomaterials, 2021, 70, 730-741.	3.4	7
87	<scp>P75</scp> and <scp>S100</scp> gene expression induced by cellâ€imprinted substrate and betaâ€carotene to nerve tissue engineering. Journal of Applied Polymer Science, 2021, 138, 50624.	2.6	7
88	Computational and experimental studies of a cell-imprinted-based integrated microfluidic device for biomedical applications. Scientific Reports, 2021, 11, 12130.	3.3	7
89	Effectiveness of Plasmocureâ„¢ in Elimination of Mycoplasma Species from Contaminated Cell Cultures: A Comparative Study versus other Antibiotics. Cell Journal, 2019, 21, 143-149.	0.2	7
90	Imaging and Therapeutic Applications of Optical and Thermal Response of SPION-Based Third Generation Plasmonic Nanodendrimers. Optics and Photonics Journal, 2015, 05, 212-226.	0.4	7

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91	In vitro evaluation of collagen immobilization on polytetrafluoroethylene through NH3 plasma treatment to enhance endothelial cell adhesion and growth. Bio-Medical Materials and Engineering, 2017, 28, 489-501.	0.6	6
92	Simultaneous effects of hydrostatic pressure and dexamethasone release from electrospun fibers on inflammation-induced chondrocytes. European Polymer Journal, 2019, 118, 244-253.	5.4	6
93	Fabrication and Characterization of Heparin/Collagen Sponge for in Vitro Differentiation of Whartonâ€™s Jelly-Derived Mesenchymal Stem Cells into Hepatocytes. Hepatitis Monthly, 2017, 17, .	0.2	6
94	Healing Effects of Synthetic and Commercial Alginate Hydrogel Dressings on Wounds: A Comparative Study. Trauma Monthly, 2016, In Press, .	0.2	6
95	Preparation and characterisation of poly vinyl alcohol/hydroxyapatite nanocomposite via in situ synthesis: a potential material as bone tissue engineering scaffolds. International Journal of Nanomanufacturing, 2010, 5, 330.	0.3	5
96	Interaction of bare and gold-coated superparamagnetic iron oxide nanoparticles with fetal bovine serum. Journal of the Iranian Chemical Society, 2011, 8, 944-950.	2.2	5
97	Efficiency of Plasmocinâ„¢ on various mammalian cell lines infected by mollicutes in comparison with commonly used antibiotics in cell culture: a local experience. Cytotechnology, 2011, 63, 609-620.	1.6	5
98	Synergistic effect of shape-selective silver nanostructures decorating reduced graphene oxide nanoplatelets for enhanced cytotoxicity against breast cancer. Nanotechnology, 2018, 29, 285102.	2.6	5
99	Cell-imprinted substrates: in search of nanotopographical fingerprints that guide stem cell differentiation. Nanoscale Advances, 2021, 3, 333-338.	4.6	5
100	Marhamâ€Mafasel decrease joint inflammation and ILâ€1Î² gene expression in rheumatoid arthritis animal model. Veterinary Medicine and Science, 2021, 7, 1417-1425.	1.6	5
101	Evaluation of Ceftriaxone Releasing from Microspheres Based on Starch Against Salmonella spp.. Biotechnology, 2007, 6, 597-600.	0.1	5
102	Formation and electrical characterization of black lipid membranes in porous filter materials. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1700104.	1.8	4
103	Repair of Spinal Cord Injury; Mesenchymal Stem Cells as an Alternative for Schwann Cells. Journal of Applied Biotechnology Reports, 2018, 5, 42-47.	0.9	4
104	Effect of Freezing and Thawing Process on Betamethasone Acetate Release from Polyvinyl Alcohol Nanospheres. Solid State Phenomena, 0, 151, 159-165.	0.3	3
105	CRISPR/Cas9 mediated GFPâ€human dentin matrix protein 1 (DMP1) promoter knockâ€in at the ROSA26 locus in mesenchymal stem cell for monitoring osteoblast differentiation. Journal of Gene Medicine, 2020, 22, e3288.	2.8	3
106	Induced cell migration based on a bioactive hydrogel sheet combined with a perfused microfluidic system. Biomedical Materials (Bristol), 2020, 15, 045010.	3.3	3
107	Cartilage tissue regeneration using kartogenin loaded hybrid scaffold for the chondrogenic of adipose mesenchymal stem cells. Journal of Drug Delivery Science and Technology, 2022, , 103384.	3.0	3
108	A new injectable biphasic hydrogel based on partially hydrolyzed polyacrylamide and nano hydroxyapatite, crosslinked with chromium acetate, as scaffold for cartilage regeneration. AIP Conference Proceedings, 2015, , .	0.4	2

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109	In situ forming hydrogels based on polyethylene glycol itaconate for tissue engineering application. Bulletin of Materials Science, 2019, 42, 1.	1.7	2
110	A conductive cellâ€imprinted substrate based on CNTâ€“PDMS composite. Biotechnology and Applied Biochemistry, 2019, 66, 445-453.	3.1	2
111	Mechanical Reinforcement of Chitosan-Gelatin Sponge with Polycaprolactone Electrospun Nanofibrous Sheets. Journal of Biomaterials and Tissue Engineering, 2013, 3, 320-329.	0.1	2
112	Synthesis and Characterization of SPION Functionalized third Generation dendrimers Conjugated by Gold Nanoparticles and Folic acid for Targeted Breast Cancer Laser Hyperthermia: An Invitro-assay. IFMBE Proceedings, 2015, , 823-826.	0.3	1
113	Oxygen-rich Environment Ameliorates Cell Therapy Outcomes of Cardiac Progenitor Cells for Myocardial Infarction. Materials Science and Engineering C, 2021, 121, 111836.	7.3	1
114	Bioprinting technology for musculoskeletal regeneration. , 2020, , 137-157.		0
115	Promising Chemoprevention of Colonic Aberrant Crypt Foci by Portunus segnis Muscle and Shell Extracts in Azoxymethane-Induced Colorectal Cancer in Rats. Anti-Cancer Agents in Medicinal Chemistry, 2020, 20, 2041-2052.	1.7	0
116	Synergistic effect of cell and molecule: imprinted substrates for bone tissue engineering. Molecular Biology Reports, 2022, , .	2.3	0
117	Comparison of engineered cartilage based on <scp>BMSCs</scp> and chondrocytes seeded on <scp>PVA</scp> â€•<scp>PPU</scp> scaffold in a sheep model. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, , .	3.4	0
118	Bone Tissue Engineering by Cell-Imprinted Polydimethyl Silicone Surface and Î²-Carotene: An In Vitro Study. Iranian Journal of Science and Technology, Transaction A: Science, 0, , .	1.5	0