Venugopal Jayarama Reddy

List of Publications by Year
in descending order

114 papers	11,673 citations	23567 58 h-index	27406 106 g-index
117 all docs	117 docs citations	117 times ranked	13590 citing authors

#	Article	IF	Citations
1	Electrospun biomimetic nanocomposite nanofibers of hydroxyapatite/chitosan for bone tissue engineering. Biomaterials, 2008, 29, 4314-4322.	11.4	637
2	Crosslinking of the electrospun gelatin nanofibers. Polymer, 2006, 47, 2911-2917.	3.8	571
3	Characterization of the Surface Biocompatibility of the Electrospun PCL-Collagen Nanofibers Using Fibroblasts. Biomacromolecules, 2005, 6, 2583-2589.	5.4	455
4	Electrospun nanostructured scaffolds for bone tissue engineering. Acta Biomaterialia, 2009, 5, 2884-2893.	8.3	379
5	Applications of conducting polymers and their issues in biomedical engineering. Journal of the Royal Society Interface, 2010, 7, S559-79.	3.4	329
6	Applications of Polymer Nanofibers in Biomedicine and Biotechnology. Applied Biochemistry and Biotechnology, 2005, 125, 147-158.	2.9	309
7	Mesenchymal stem cell differentiation to neuronal cells on electrospun nanofibrous substrates for nerve tissue engineering. Biomaterials, 2009, 30, 4996-5003.	11.4	293
8	Interaction of cells and nanofiber scaffolds in tissue engineering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2008, 84B, 34-48.	3.4	281
9	Nanostructured biocomposite substrates by electrospinning and electrospraying for the mineralization of osteoblasts. Biomaterials, 2009, 30, 2085-2094.	11.4	276
10	Aligned and random nanofibrous substrate for the in vitro culture of Schwann cells for neural tissue engineering. Acta Biomaterialia, 2009, 5, 2560-2569.	8.3	267
11	Electrospun composite nanofibers and their multifaceted applications. Journal of Materials Chemistry, 2012, 22, 12953.	6.7	267
12	Electrospun Biocomposite Nanofibrous Scaffolds for Neural Tissue Engineering. Tissue Engineering - Part A, 2008, 14, 1787-1797.	3.1	261
13	Controlled release of bone morphogenetic protein 2 and dexamethasone loaded in coreâ€“shell PLLACLâ€“collagen fibers for use in bone tissue engineering. Acta Biomaterialia, 2012, 8, 763-771.	8.3	241
14	Biocompatible Nanofiber Matrices for the Engineering of a Dermal Substitute for Skin Regeneration. Tissue Engineering, 2005, 11, 847-854.	4.6	222
15	Nanobioengineered Electrospun Composite Nanofibers and Osteoblasts for Bone Regeneration. Artificial Organs, 2008, 32, 388-397.	1.9	221
16	Precipitation of nanohydroxyapatite on PLLA/PBLG/Collagen nanofibrous structures for the differentiation of adipose derived stem cells to osteogenic lineage. Biomaterials, 2012, 33, 846-855.	11.4	220
17	Dyeing and antimicrobial characteristics of chitosan treated wool fabrics with henna dye. Carbohydrate Polymers, 2009, 75, 646-650.	10.2	219
18	Science and engineering of electrospun nanofibers for advances in clean energy, water filtration, and regenerative medicine. Journal of Materials Science, 2010, 45, 6283-6312.	3.7	213

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19	In Vitro Culture of Human Dermal Fibroblasts on Electrospun Polycaprolactone Collagen Nanofibrous Membrane. Artificial Organs, 2006, 30, 440-446.	1.9	197
20	Surface modified electrospun nanofibrous scaffolds for nerve tissue engineering. Nanotechnology, 2008, 19, 455102.	2.6	193
21	Biomaterial strategies for alleviation of myocardial infarction. Journal of the Royal Society Interface, 2012, 9, 1-19.	3.4	186
22	Mineralization of osteoblasts with electrospun collagen/hydroxyapatite nanofibers. Journal of Materials Science: Materials in Medicine, 2008, 19, 2039-2046.	3.6	166
23	Bio-inspired in situ crosslinking and mineralization of electrospun collagen scaffolds for bone tissue engineering. Biomaterials, 2016, 104, 323-338.	11.4	166
24	Fabrication of a nanofibrous scaffold with improved bioactivity for culture of human dermal fibroblasts for skin regeneration. Biomedical Materials (Bristol), 2011, 6, 015001.	3.3	161
25	In vitro study of smooth muscle cells on polycaprolactone and collagen nanofibrous matrices. Cell Biology International, 2005, 29, 861-867.	3.0	160
26	Advances in Polymeric Systems for Tissue Engineering and Biomedical Applications. Macromolecular Bioscience, 2012, 12, 286-311.	4.1	157
27	Biocomposite nanofibres and osteoblasts for bone tissue engineering. Nanotechnology, 2007, 18, 055101.	2.6	149
28	Nanofibrous structured biomimetic strategies for skin tissue regeneration. Wound Repair and Regeneration, 2013, 21, 1-16.	3.0	149
29	Polycaprolactone nanofibers for the controlled release of tetracycline hydrochloride. Materials Letters, 2015, 141, 180-186.	2.6	147
30	Biomimetic hydroxyapatite-containing composite nanofibrous substrates for bone tissue engineering. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2065-2081.	3.4	136
31	Fabrication of modified and functionalized polycaprolactone nanofibre scaffolds for vascular tissue engineering. Nanotechnology, 2005, 16, 2138-2142.	2.6	135
32	Electrospunâ€modified nanofibrous scaffolds for the mineralization of osteoblast cells. Journal of Biomedical Materials Research - Part A, 2008, 85A, 408-417.	4.0	121
33	Poly(Glycerol Sebacate)/Gelatin Core/Shell Fibrous Structure for Regeneration of Myocardial Infarction. Tissue Engineering - Part A, 2011, 17, 1363-1373.	3.1	121
34	Enhanced Biomineralization in Osteoblasts on a Novel Electrospun Biocomposite Nanofibrous Substrate of Hydroxyapatite/Collagen/Chitosan. Tissue Engineering - Part A, 2010, 16, 1949-1960.	3.1	112
35	Controlled release of drugs in electrosprayed nanoparticles for bone tissue engineering. Advanced Drug Delivery Reviews, 2015, 94, 77-95.	13.7	112
36	Human Umbilical Cord Whartonâ€™s Jelly Stem Cells Undergo Enhanced Chondrogenic Differentiation when Grown on Nanofibrous Scaffolds and in a Sequential Two-stage Culture Medium Environment. Stem Cell Reviews and Reports, 2012, 8, 195-209.	5.6	106

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37	3D Fabrication of Polymeric Scaffolds for Regenerative Therapy. ACS Biomaterials Science and Engineering, 2017, 3, 1175-1194.	5.2	105
38	Antibacterial glass-ionomer cement restorative materials: A critical review on the current status of extended release formulations. Journal of Controlled Release, 2017, 262, 317-328.	9.9	104
39	Gold Nanoparticle Loaded Hybrid Nanofibers for Cardiogenic Differentiation of Stem Cells for Infarcted Myocardium Regeneration. Macromolecular Bioscience, 2014, 14, 515-525.	4.1	102
40	Vitamin B12 loaded polycaprolactone nanofibers: A novel transdermal route for the water soluble energy supplement delivery. International Journal of Pharmaceutics, 2013, 444, 70-76.	5.2	101
41	A bird's eye view on the use of electrospun nanofibrous scaffolds for bone tissue engineering: Current stateâ€ofâ€theâ€art, emerging directions and future trends. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 2181-2200.	3.3	93
42	Nanotechnology for Nanomedicine and Delivery of Drugs. Current Pharmaceutical Design, 2008, 14, 2184-2200.	1.9	92
43	Minimally invasive injectable short nanofibers of poly(glycerol sebacate) for cardiac tissue engineering. Nanotechnology, 2012, 23, 385102.	2.6	92
44	Centrifugal spun ultrafine fibrous web as a potential drug delivery vehicle. EXPRESS Polymer Letters, 2013, 7, 238-248.	2.1	91
45	Simultaneous electrospinâ€“electrosprayed biocomposite nanofibrous scaffolds for bone tissue regeneration. Acta Biomaterialia, 2010, 6, 4100-4109.	8.3	90
46	Cardiogenic differentiation of mesenchymal stem cells with gold nanoparticle loaded functionalized nanofibers. Colloids and Surfaces B: Biointerfaces, 2015, 134, 346-354.	5.0	85
47	Aloe vera incorporated biomimetic nanofibrous scaffold: a regenerative approach for skin tissue engineering. Iranian Polymer Journal (English Edition), 2014, 23, 237-248.	2.4	84
48	Functionalized hybrid nanofibers to mimic native ECM for tissue engineering applications. Applied Surface Science, 2014, 322, 162-168.	6.1	84
49	Expression of cardiac proteins in neonatal cardiomyocytes on PGS/fibrinogen core/shell substrate for Cardiac tissue engineering. International Journal of Cardiology, 2013, 167, 1461-1468.	1.7	81
50	Recent advancements in nanotechnological strategies in selection, design and delivery of biomolecules for skin regeneration. Materials Science and Engineering C, 2016, 67, 747-765.	7.3	76
51	Biomimetic material strategies for cardiac tissue engineering. Materials Science and Engineering C, 2011, 31, 503-513.	7.3	72
52	Curcumin- and natural extract-loaded nanofibres for potential treatment of lung and breast cancer:<i>in vitro</i>efficacy evaluation. Journal of Biomaterials Science, Polymer Edition, 2014, 25, 985-998.	3.5	72
53	Biologically improved nanofibrous scaffolds for cardiac tissue engineering. Materials Science and Engineering C, 2014, 44, 268-277.	7.3	71
54	Precipitation of hydroxyapatite on electrospun polycaprolactone/aloe vera/silk fibroin nanofibrous scaffolds for bone tissue engineering. Journal of Biomaterials Applications, 2014, 29, 46-58.	2.4	70

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55	Evaluation of the Biocompatibility of PLACL/Collagen Nanostructured Matrices with Cardiomyocytes as a Model for the Regeneration of Infarcted Myocardium. Advanced Functional Materials, 2011, 21, 2291-2300.	14.9	64
56	Electrospun inorganic and polymer composite nanofibers for biomedical applications. Journal of Biomaterials Science, Polymer Edition, 2013, 24, 365-385.	3.5	64
57	Trans-differentiation of human mesenchymal stem cells generates functional hepatospheres on poly(l-lactic acid)-co-poly(Îµ-caprolactone)/collagen nanofibrous scaffolds. Journal of Materials Chemistry B, 2013, 1, 3972.	5.8	62
58	Naturally derived biofunctional nanofibrous scaffold for skin tissue regeneration. International Journal of Biological Macromolecules, 2014, 68, 135-143.	7.5	62
59	Mimicking Native Extracellular Matrix with Phytic Acidâ€Crosslinked Protein Nanofibers for Cardiac Tissue Engineering. Macromolecular Bioscience, 2013, 13, 366-375.	4.1	59
60	Continuous Nanostructures for the Controlled Release of Drugs. Current Pharmaceutical Design, 2009, 15, 1799-1808.	1.9	57
61	Synthesis and applications of multifunctional composite nanomaterials. International Journal of Mechanical and Materials Engineering, 2014, 9, .	2.2	54
62	Nanofibrous substrates support colony formation and maintain stemness of human embryonic stem cells. Journal of Cellular and Molecular Medicine, 2009, 13, 3475-3484.	3.6	53
63	Sequel of MgO nanoparticles in PLACL nanofibers for anti-cancer therapy in synergy with curcumin/Î²-cyclodextrin. Materials Science and Engineering C, 2017, 71, 620-628.	7.3	53
64	Electrospinning applications from diagnosis to treatment of diabetes. RSC Advances, 2016, 6, 83638-83655.	3.6	49
65	Polysaccharide nanofibrous scaffolds as a model for in vitro skin tissue regeneration. Journal of Materials Science: Materials in Medicine, 2012, 23, 1511-1519.	3.6	46
66	Smart Polymeric Nanofibers for Topical Delivery of Levothyroxine. Journal of Pharmacy and Pharmaceutical Sciences, 2010, 13, 400.	2.1	44
67	Biomimetic composites and stem cells interaction for bone and cartilage tissue regeneration. Journal of Materials Chemistry, 2012, 22, 5239.	6.7	44
68	Mimicking Nanofibrous Hybrid Bone Substitute for Mesenchymal Stem Cells Differentiation into Osteogenesis. Macromolecular Bioscience, 2013, 13, 696-706.	4.1	44
69	A Nanoscaffold Impregnated With Human Wharton's Jelly Stem Cells or Its Secretions Improves Healing of Wounds. Journal of Cellular Biochemistry, 2014, 115, 794-803.	2.6	42
70	Elastomeric electrospun scaffolds of poly(l-lactide-co-trimethylene carbonate) for myocardial tissue engineering. Journal of Materials Science: Materials in Medicine, 2011, 22, 1689-1699.	3.6	41
71	Elastomeric Core/Shell Nanofibrous Cardiac Patch as a Biomimetic Support for Infarcted Porcine Myocardium. Tissue Engineering - Part A, 2015, 21, 1288-1298.	3.1	40
72	Biomimetic acellular detoxified glutaraldehyde cross-linked bovine pericardium for tissue engineering. Materials Science and Engineering C, 2013, 33, 1561-1572.	7.3	39

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73	Composite poly-l-lactic acid/poly-(Î±,Î²)-dl-aspartic acid/collagen nanofibrous scaffolds for dermal tissue regeneration. Materials Science and Engineering C, 2012, 32, 1443-1451.	7.3	36
74	Xylan polysaccharides fabricated into nanofibrous substrate for myocardial infarction. Materials Science and Engineering C, 2013, 33, 1325-1331.	7.3	36
75	Electrosprayed Hydroxyapatite on Polymer Nanofibers to Differentiate Mesenchymal Stem Cells to Osteogenesis. Journal of Biomaterials Science, Polymer Edition, 2013, 24, 170-184.	3.5	35
76	Herbally derived polymeric nanofibrous scaffolds for bone tissue regeneration. Journal of Applied Polymer Science, 2014, 131, .	2.6	34
77	Minimally invasive cell-seeded biomaterial systems for injectable/epicardial implantation in ischemic heart disease. International Journal of Nanomedicine, 2012, 7, 5969.	6.7	33
78	Osteogenic Differentiation of Human Wharton's Jelly Stem Cells on Nanofibrous Substrates<i>In Vitro</i>. Tissue Engineering - Part A, 2011, 17, 71-81.	3.1	32
79	Self crimped and aligned fibers. Materials Today, 2011, 14, 226-229.	14.2	32
80	Polycaprolactone/oligomer compound scaffolds for cardiac tissue engineering. Journal of Biomedical Materials Research - Part A, 2014, 102, 3713-3725.	4.0	31
81	Biocomposite nanofibrous strategies for the controlled release of biomolecules for skin tissue regeneration. International Journal of Nanomedicine, 2014, 9, 4709.	6.7	30
82	Biomimetic hybrid nanofibrous substrates for mesenchymal stem cells differentiation into osteogenic cells. Materials Science and Engineering C, 2015, 49, 776-785.	7.3	30
83	Cross-linking of protein scaffolds for therapeutic applications: PCL nanofibers delivering riboflavin for protein cross-linking. Journal of Materials Chemistry B, 2014, 2, 1626-1633.	5.8	29
84	Latent Oxidative Polymerization of Catecholamines as Potential Cross-linkers for Biocompatible and Multifunctional Biopolymer Scaffolds. ACS Applied Materials & Interfaces, 2016, 8, 32266-32281.	8.0	29
85	Fabrication of a biomimetic ZeinPDA nanofibrous scaffold impregnated with BMPâ€2 peptide conjugated TiO ₂ nanoparticle for bone tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 991-1001.	2.7	27
86	Novel and simple methodology to fabricate porous and buckled fibrous structures for biomedical applications. Polymer, 2014, 55, 5837-5842.	3.8	26
87	Osteoblasts mineralization with Composite nanofibrous substrate for Bone tissue regeneration. Cell Biology International, 2011, 35, 73-80.	3.0	25
88	Click chemistry approach for fabricating PVA/gelatin nanofibers for the differentiation of ADSCs to keratinocytes. Journal of Materials Science: Materials in Medicine, 2013, 24, 2863-2871.	3.6	25
89	Controlled release of titanocene into the hybrid nanofibrous scaffolds to prevent the proliferation of breast cancer cells. International Journal of Pharmaceutics, 2015, 483, 115-123.	5.2	25
90	A Patientâ€Inspired Ex Vivo Liver Tissue Engineering Approach with Autologous Mesenchymal Stem Cells and Hepatogenic Serum. Advanced Healthcare Materials, 2016, 5, 1058-1070.	7.6	25

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91	Aloe Vera/Silk Fibroin/Hydroxyapatite Incorporated Electrospun Nanofibrous Scaffold for Enhanced Osteogenesis. Journal of Biomaterials and Tissue Engineering, 2014, 4, 9-19.	0.1	25
92	Multimodal biomaterial strategies for regeneration of infarcted myocardium. Journal of Materials Chemistry, 2010, 20, 8819.	6.7	23
93	Prediction of water retention capacity of hydrolysed electrospun polyacrylonitrile fibers using statistical model and artificial neural network. Journal of Applied Polymer Science, 2009, 113, 3397-3404.	2.6	22
94	<i>Agave sisalana</i>, a biosorbent for the adsorption of Reactive Red 120 from aqueous solution. Journal of the Textile Institute, 2010, 101, 414-422.	1.9	18
95	Buckled structures and 5-azacytidine enhance cardiogenic differentiation of adipose-derived stem cells. Nanomedicine, 2013, 8, 1985-1997.	3.3	18
96	Improved regeneration potential of fibroblasts using ascorbic acidâ€blended nanofibrous scaffolds. Journal of Biomedical Materials Research - Part A, 2015, 103, 3431-3440.	4.0	18
97	Breathable Medicine: Pulmonary Mode of Drug Delivery. Journal of Nanoscience and Nanotechnology, 2015, 15, 2591-2604.	0.9	17
98	Advances in biomaterials for hepatic tissue engineering. Current Opinion in Biomedical Engineering, 2020, 13, 190-196.	3.4	17
99	Nanofibers coated on acellular tissue-engineered bovine pericardium supports differentiation of mesenchymal stem cells into endothelial cells for tissue engineering. Nanomedicine, 2014, 9, 623-634.	3.3	16
100	Minocycline Loaded Hybrid Composites Nanoparticles for Mesenchymal Stem Cells Differentiation into Osteogenesis. International Journal of Molecular Sciences, 2016, 17, 1222.	4.1	15
101	Hydroxyapatite-intertwined hybrid nanofibres for the mineralization of osteoblasts. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 1853-1864.	2.7	13
102	The effect of the anti-allergic agent avil on abnormal scar fibroblasts. Burns, 1999, 25, 223-228.	1.9	12
103	Highly Stable Bonding of Thiol Monolayers to Hydrogen-Terminated Si via Supercritical Carbon Dioxide: Toward a Super Hydrophobic and Bioresistant Surface. ACS Applied Materials & Interfaces, 2016, 8, 24933-24945.	8.0	12
104	Electrospun nanofibres: Biomedical applications. Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanoengineering and Nanosystems, 2004, 218, 35-45.	0.1	11
105	Deposition of zwitterionic polymer brushes in a dense gas medium. Journal of Colloid and Interface Science, 2015, 448, 156-162.	9.4	8
106	Nanotechnology: 21st century revolution in restorative healthcare. Nanomedicine, 2016, 11, 1511-1513.	3.3	8
107	Low frequency magnetic force augments hepatic differentiation of mesenchymal stem cells on a biomagnetic nanofibrous scaffold. Journal of Materials Science: Materials in Medicine, 2014, 25, 2579-2589.	3.6	7
108	Inhibition of ATPases Enzyme Activities on Brain Disturbing Normal Oestrous Cycle. Neurochemical Research, 2005, 30, 315-323.	3.3	5

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109	Nanofiber-reinforced biological conduit in cardiac surgery: preliminary report. Asian Cardiovascular and Thoracic Annals, 2011, 19, 207-212.	0.5	4
110	Practical Considerations for Medical Applications using Biological Grafts and their Derivatives. Materials Research Society Symposia Proceedings, 2012, 1418, 215.	0.1	1
111	Biomimetic approaches for cell implantation to the restoration of infarcted myocardium. Nanomedicine, 2015, 10, 2907-2930.	3.3	1
112	Facile Manufacture of Oxide-Free Cu Particles Coated with Oleic Acid by Electrical Discharge Machining. Micromachines, 2022, 13, 969.	2.9	1
113	ROLE OF PHENERGAN IN ABNORMAL SCARS AND KELOIDS. Journal of Biological Systems, 2004, 12, 471-482.	1.4	0
114	Modeling Machinability Parameters of Turning Al-SiC (10p) MMC by Artificial Neural Network. , 2008, , .		0