Murugan Ramalingam

List of Publications by Year
in descending order

137 papers	8,576 citations	94269 37 h-index	45213 90 g-index
171 all docs	171 docs citations	171 times ranked	11010 citing authors

#	Article	IF	Citations
1	Electrospinning of nano/micro scale poly(l-lactic acid) aligned fibers and their potential in neural tissue engineering. Biomaterials, 2005, 26, 2603-2610.	5.7	1,652
2	Development of nanocomposites for bone grafting. Composites Science and Technology, 2005, 65, 2385-2406.	3.8	620
3	Fabrication of nano-structured porous PLLA scaffold intended for nerve tissue engineering. Biomaterials, 2004, 25, 1891-1900.	5.7	564
4	Design Strategies of Tissue Engineering Scaffolds with Controlled Fiber Orientation. Tissue Engineering, 2007, 13, 1845-1866.	4.9	381
5	Nano-Featured Scaffolds for Tissue Engineering: A Review of Spinning Methodologies. Tissue Engineering, 2006, 12, 435-447.	4.9	360
6	Gradient biomaterials for soft-to-hard interface tissue engineering. Acta Biomaterialia, 2011, 7, 1441-1451.	4.1	338
7	Bioresorbable composite bone paste using polysaccharide based nano hydroxyapatite. Biomaterials, 2004, 25, 3829-3835.	5.7	335
8	Nanobiomaterial applications in orthopedics. Journal of Orthopaedic Research, 2007, 25, 11-22.	1.2	316
9	Dielectrophoretically Aligned Carbon Nanotubes to Control Electrical and Mechanical Properties of Hydrogels to Fabricate Contractile Muscle Myofibers. Advanced Materials, 2013, 25, 4028-4034.	11.1	236
10	Skeletal Muscle Tissue Engineering: Methods to Form Skeletal Myotubes and Their Applications. Tissue Engineering - Part B: Reviews, 2014, 20, 403-436.	2.5	218
11	Hybrid hydrogels containing vertically aligned carbon nanotubes with anisotropic electrical conductivity for muscle myofiber fabrication. Scientific Reports, 2014, 4, 4271.	1.6	213
12	Engineered Contractile Skeletal Muscle Tissue on a Microgrooved Methacrylated Gelatin Substrate. Tissue Engineering - Part A, 2012, 18, 2453-2465.	1.6	206
13	Development of decellularized scaffolds for stem cell-driven tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 942-965.	1.3	179
14	Production of ultra-fine bioresorbable carbonated hydroxyapatite. Acta Biomaterialia, 2006, 2, 201-206.	4.1	124
15	Nanoporous hydroxy-carbonate apatite scaffold made of natural bone. Materials Letters, 2006, 60, 2844-2847.	1.3	118
16	Processing nanoengineered scaffolds through electrospinning and mineralization suitable for biomimetic bone tissue engineering. Journal of the Mechanical Behavior of Biomedical Materials, 2008, 1, 252-260.	1.5	116
17	Facile and green production of aqueous graphene dispersions for biomedical applications. Nanoscale, 2015, 7, 6436-6443.	2.8	114
18	Bioconjugated Hydrogels for Tissue Engineering and Regenerative Medicine. Bioconjugate Chemistry, 2015, 26, 1984-2001.	1.8	111

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19	Myotube formation on gelatin nanofibers â€“ Multi-walled carbon nanotubes hybrid scaffolds. Biomaterials, 2014, 35, 6268-6277.	5.7	109
20	Crystallographic Study of Hydroxyapatite Bioceramics Derived from Various Sources. Crystal Growth and Design, 2005, 5, 111-112.	1.4	108
21	Aqueous mediated synthesis of bioresorbable nanocrystalline hydroxyapatite. Journal of Crystal Growth, 2005, 274, 209-213.	0.7	105
22	Fabrication of conducting electrospun nanofibers scaffold for three-dimensional cells culture. International Journal of Biological Macromolecules, 2012, 51, 627-631.	3.6	88
23	Biomimetic nanocomposites for bone graft applications. Nanomedicine, 2006, 1, 177-188.	1.7	79
24	Heat-deproteinated xenogeneic bone from slaughterhouse waste: Physico-chemical properties. Bulletin of Materials Science, 2003, 26, 523-528.	0.8	75
25	Three-dimensional co-culture of C2C12/PC12 cells improves skeletal muscle tissue formation and function. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 582-595.	1.3	70
26	Electrical stimulation as a biomimicry tool for regulating muscle cell behavior. Organogenesis, 2013, 9, 87-92.	0.4	65
27	Coupling of therapeutic molecules onto surface modified coralline hydroxyapatite. Biomaterials, 2004, 25, 3073-3080.	5.7	64
28	Design and fabrication of auxetic PCL nanofiber membranes for biomedical applications. Materials Science and Engineering C, 2017, 81, 334-340.	3.8	64
29	Fluorinated bovine hydroxyapatite: preparation and characterization. Materials Letters, 2002, 57, 429-433.	1.3	60
30	Functional Hydrogels for Treatment of Chronic Wounds. Gels, 2022, 8, 127.	2.1	60
31	Nanofiber scaffold gradients for interfacial tissue engineering. Journal of Biomaterials Applications, 2013, 27, 695-705.	1.2	58
32	Electrically regulated differentiation of skeletal muscle cells on ultrathin graphene-based films. RSC Advances, 2014, 4, 9534.	1.7	57
33	Covalently immobilized VEGF-mimicking peptide with gelatin methacrylate enhances microvascularization of endothelial cells. Acta Biomaterialia, 2017, 51, 330-340.	4.1	49
34	Electrospun Polycaprolactone/Poly(1,4-butylene adipate-co-polycaprolactam) Blends: Potential Biodegradable Scaffold for Bone Tissue Regeneration. Journal of Biomaterials and Tissue Engineering, 2011, 1, 30-39.	0.0	47
35	3D Printing of Micro- and Nanoscale Bone Substitutes: A Review on Technical and Translational Perspectives. International Journal of Nanomedicine, 2021, Volume 16, 4289-4319.	3.3	44
36	A microfluidic-based neurotoxin concentration gradient for the generation of an in vitro model of Parkinsonâ€™s disease. Biomicrofluidics, 2011, 5, 22214.	1.2	43

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37	Accelerated synthesis of biomimetic nano hydroxyapatite using simulated body fluid. Materials Chemistry and Physics, 2016, 180, 166-172.	2.0	42
38	Surface functionalization of nanobiomaterials for application in stem cell culture, tissue engineering, and regenerative medicine. Biotechnology Progress, 2016, 32, 554-567.	1.3	40
39	Designing vascular supportive albumen-rich composite bioink for organ 3D printing. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 104, 103642.	1.5	39
40	Carbon Nanotubes and Graphene-Based Nanomaterials for Stem Cell Differentiation and Tissue Regeneration. Journal of Nanoscience and Nanotechnology, 2016, 16, 8862-8880.	0.9	37
41	Controlled Release of Drugs from Gradient Hydrogels for High-Throughput Analysis of Cellâ€“Drug Interactions. Analytical Chemistry, 2012, 84, 1302-1309.	3.2	36
42	Stem Cell Differentiation Toward the Myogenic Lineage for Muscle Tissue Regeneration: A Focus on Muscular Dystrophy. Stem Cell Reviews and Reports, 2015, 11, 866-884.	5.6	35
43	Impact of Induced Pluripotent Stem Cells in Bone Repair and Regeneration. Current Osteoporosis Reports, 2019, 17, 226-234.	1.5	34
44	Cell-Laden Hydrogels for Tissue Engineering. Journal of Biomaterials and Tissue Engineering, 2014, 4, 507-535.	0.0	33
45	Effect of zirconia on the formation of calcium phosphate bioceramics under microwave irradiation. Materials Letters, 2004, 58, 230-234.	1.3	32
46	An Introduction to Stem Cell Biology andÂTissue Engineering. , 2015, , 1-13.		32
47	Applications of Carbon Nanotubes in Stem Cell Research. Journal of Biomedical Nanotechnology, 2014, 10, 2539-2561.	0.5	29
48	In situformation of recombinant humanlike collagen-hydroxyapatite nanohybrid through bionic approach. Applied Physics Letters, 2006, 88, 193124.	1.5	26
49	High-resolution combinatorial 3D printing of gelatin-based biomimetic triple-layered conduits for nerve tissue engineering. International Journal of Biological Macromolecules, 2021, 166, 1280-1291.	3.6	26
50	Biomaterial surface patterning of self-assembled monolayers for controlling neuronal cell behaviour. International Journal of Biomedical Engineering and Technology, 2009, 2, 104.	0.2	25
51	The Use of Microtechnology and Nanotechnology in Fabricating Vascularized Tissues. Journal of Nanoscience and Nanotechnology, 2014, 14, 487-500.	0.9	25
52	Grafting of glycidyl methacrylate upon coralline hydroxyapatite in conjugation with demineralized bone matrix using redox initiating system. Macromolecular Research, 2003, 11, 14-18.	1.0	22
53	Accelerated Sonochemical Synthesis of Calcium Deficient Hydroxyapatite Nanoparticles: Structural and Morphological Evolution. Journal of Biomaterials and Tissue Engineering, 2014, 4, 295-299.	0.0	22
54	Development of Egg Shell Derived Carbonated Apatite Nanocarrier System for Drug Delivery. Journal of Nanoscience and Nanotechnology, 2018, 18, 2318-2324.	0.9	20

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55	Spatially Controlled Cell Growth Using Patterned Biomaterials. Advanced Materials Letters, 2010, 1, 179-187.	0.3	19
56	Graft polymerization of glycidylmethacrylate onto coralline hydroxyapatite. Journal of Biomaterials Science, Polymer Edition, 2003, 14, 457-468.	1.9	18
57	3D printing of selfâ€standing and vascular supportive multimaterial hydrogel structures for organ engineering. Biotechnology and Bioengineering, 2022, 119, 118-133.	1.7	17
58	Advances in Stimuli Responsive Nanobiomaterials for Cancer Therapy. Journal of Biomedical Nanotechnology, 2014, 10, 367-382.	0.5	16
59	Gradient Nanofiber Scaffolds for Tissue Engineering. Journal of Nanoscience and Nanotechnology, 2013, 13, 4647-4655.	0.9	15
60	Impact of Nanotechnology in Induced Pluripotent Stem Cells-driven Tissue Engineering and Regenerative Medicine. Journal of Bionanoscience, 2015, 9, 13-21.	0.4	14
61	Cells and Nanomaterial-Based Tissue Engineering Techniques in the Treatment of Bone and Cartilage Injuries. Journal of Nanoscience and Nanotechnology, 2016, 16, 8948-8952.	0.9	13
62	Cell-laden alginate/polyacrylamide beads as carriers for stem cell delivery: preparation and characterization. RSC Advances, 2016, 6, 20475-20484.	1.7	13
63	Introduction to nanofiber composites. , 2017, , 3-29.		13
64	Hydroxyl Carbonateapatite Hybrid Bone Composites Using Carbohydrate Polymer. Journal of Composite Materials, 2005, 39, 1159-1167.	1.2	12
65	Considerations on Designing Scaffold for Tissue Engineering. , 2015, , 133-148.		11
66	Designing biological apatite suitable for neomycin delivery. Journal of Materials Science, 2006, 41, 4343-4347.	1.7	10
67	Quartz Crystal Microbalance with Dissipation Monitoring: A Powerful Tool for BioNanoScience and Drug Discovery. Journal of Bionanoscience, 2015, 9, 249-260.	0.4	10
68	Impact of Nanotechnology on 3D Bioprinting. Journal of Bionanoscience, 2017, 11, 1-6.	0.4	10
69	Designed and fabrication of triple-layered vascular scaffold with microchannels. Journal of Biomaterials Science, Polymer Edition, 2021, 32, 714-734.	1.9	10
70	Topological Structure Design and Fabrication of Biocompatible PLA/TPU/ADM Mesh with Appropriate Elasticity for Hernia Repair. Macromolecular Bioscience, 2021, 21, e2000423.	2.1	10
71	Impact of Nanophase Hydroxyapatite-Based Biomaterials on Tissue Engineering. Journal of Bionanoscience, 2018, 12, 469-477.	0.4	10
72	Dental pulp stem cells in neuroregeneration. Journal of Pharmacy and Bioallied Sciences, 2020, 12, 60.	0.2	10

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73	Modification of demineralized bone matrix by a chemical route. Journal of Materials Chemistry, 2004, 14, 2041.	6.7	9
74	Enhanced proliferation of human bone marrow derived mesenchymal stem cells on tough hydrogel substrates. Materials Science and Engineering C, 2017, 76, 1057-1065.	3.8	9
75	A Facile Method for Controlled Fabrication of Hybrid Silver Nanoparticle-Poly(<i />-caprolactone) Fibrous Constructs with Antimicrobial Properties. Journal of Nanoscience and Nanotechnology, 2019, 19, 6949-6955.	0.9	9
76	Cardiac Differentiation of Mesenchymal Stem Cells: Impact of Biological and Chemical Inducers. Stem Cell Reviews and Reports, 2021, 17, 1343-1361.	1.7	9
77	Development of Nanofiber Biomaterials and Stem Cells in Tissue Engineering. Journal of Biomaterials and Tissue Engineering, 2011, 1, 111-128.	0.0	9
78	Antimicrobial Activity of Chemical, Thermal and Green Route-Derived Zinc Oxide Nanoparticles: A Comparative Analysis. Nano Biomedicine and Engineering, 2020, 12, .	0.3	9
79	Nanofiber composites in drug delivery. , 2017, , 199-223.		8
80	Decellularized Amniotic Membrane Scaffold Compared to Synthetic PLGA and Hybrid Scaffolds Exhibit Superlative Biomechanical Properties for Tissue Engineering Applications. Journal of Biomaterials and Tissue Engineering, 2016, 6, 549-562.	0.0	8
81	Regeneration of Carbonyl Compounds from Oximes Using BTBAD under Microwave Irradiation. Chemistry Letters, 2004, 33, 1038-1039.	0.7	7
82	Nanoengineered Biomimetic Bone-Building Blocks. , 2007, , 301-352.		7
83	Rapid fabrication of gelatin-based scaffolds with prevascularized channels for organ regeneration. Biomedical Materials (Bristol), 2021, 16, 045010.	1.7	7
84	Novel Coreâ€“Shell Nanocapsules for the Tunable Delivery of Bioactive <I>rh</I>EGF: Formulation, Characterization and Cytocompatibility Studies. Journal of Biomaterials and Tissue Engineering, 2015, 5, 730-743.	0.0	7
85	3D Printing of Stem Cell Responsive Ionically-Crosslinked Polyethylene Glycol Diacrylate/ Alginate Composite Hydrogels Loaded with Basic Fibroblast Growth Factor for Dental Pulp Tissue Engineering: A Preclinical Evaluation in Animal Model. Journal of Biomaterials and Tissue Engineering, 2019, 9, 1635-1643.	0.0	7
86	Designing Biomimetic Triple-Layered Nanofibrous Vascular Grafts via Combinatorial Electrospinning Approach. Journal of Nanoscience and Nanotechnology, 2020, 20, 6396-6405.	0.9	7
87	Nanoparticles and their Biomedical Applications. Biointerface Research in Applied Chemistry, 2020, 11, 8431-8445.	1.0	7
88	Surface Functionalization of Biomaterials. , 2017, , 331-343.		6
89	Development of Silver-Based Bactericidal Composite Nanofibers by Airbrushing. Journal of Nanoscience and Nanotechnology, 2018, 18, 2951-2955.	0.9	6
90	<scp>3D printingâ€assisted</scp>combinatorial approach for designing mechanicallyâ€tunable and vascular supportive nanofibrous membranes to repair perforated eardrum. Journal of Applied Polymer Science, 2021, 138, 50132.	1.3	6

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91	Mechanical characterization of nanofiber composites. , 2017, , 117-155.		6
92	Grafting of glycidylmethacrylate onto demineralized xenogeneic bone in aqueous medium. Polymer Bulletin, 2003, 49, 395-402.	1.7	5
93	Microvesicles from Schwann-Like Cells as a New Biomaterial Promote Axonal Growth. Journal of Biomedical Nanotechnology, 2021, 17, 291-302.	0.5	5
94	Nanofiber composites in cartilage tissue engineering. , 2017, , 325-344.		5
95	Nanofiber composites in gene delivery. , 2017, , 253-274.		5
96	Impact of Gradient Biomaterials on Interface Tissue Engineering. Journal of Biomaterials and Tissue Engineering, 2012, 2, 89-99.	0.0	5
97	Ce(IV) ion initiated graft polymerization of glycidylmethacrylate onto a demineralized bone matrix: effect of reaction parameters. Colloid and Polymer Science, 2004, 282, 1316-1322.	1.0	4
98	<I>A Special Section on</I> Advances in Electrospinning of Nanofibers and Their Biomedical Applications. Journal of Nanoscience and Nanotechnology, 2013, 13, 4645-4646.	0.9	4
99	<I>A Special Section on</I> The Role of Nanotechnology in Stem Cell Research. Journal of Nanoscience and Nanotechnology, 2016, 16, 8859-8861.	0.9	4
100	Control of Stem Cell Fate and Function by Polymer Nanofibers. Journal of Nanoscience and Nanotechnology, 2016, 16, 9015-9021.	0.9	4
101	3D Polymer Scaffold Arrays. Methods in Molecular Biology, 2011, 671, 161-174.	0.4	4
102	Bone Mineral-Like Nanoscale Amorphous Calcium Phosphate Derived from Egg Shells. Journal of Bionanoscience, 2017, 11, 297-300.	0.4	4
103	Antibacterial Activity of Sargasum longifolium-Polycaprolactone Nanobiocomposite for Fish Pathogen. Journal of Bionanoscience, 2018, 12, 417-421.	0.4	4
104	RNAi Therapeutics: Current Status of Nanoncologic siRNA Delivery Systems. Journal of Bionanoscience, 2011, 5, 1-17.	0.4	3
105	Peroxiredoxin 6 secreted by Schwann-like cells protects neuron against ischemic stroke in rats via PTEN/PI3K/AKT pathway. Tissue and Cell, 2021, 73, 101635.	1.0	3
106	Ceramic nanofiber composites. , 2017, , 33-54.		3
107	Clinical/preclinical aspects of nanofiber composites. , 2017, , 507-528.		3
108	Preparation and Biocompatibility Evaluation of Nanoscale Isoniazide-Loaded Mineralized Collagen Implants for Tuberculous Bone and Joint Repair. Journal of Biomedical Nanotechnology, 2022, 18, 193-201.	0.5	3

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109	Analysis of bovine-derived demineralized bone extracts. Journal of Materials Science: Materials in Medicine, 2008, 19, 2423-2426.	1.7	2
110	A Comparative Study of the Antibacterial Activity of Rosemary Extract Blended with Polymeric Biomaterials. Journal of Bionanoscience, 2016, 10, 326-330.	0.4	2
111	Influence of perfluorocarbons on Carbamazepine and Benzodiazepine for a neuro-lung protective strategy. Journal of Clinical Neuroscience, 2017, 43, 82-88.	0.8	2
112	A 5â€‰+â€‰1-Axis 3D Printing Platform for Producing Customized Intestinal Fistula Stents. 3D Printing and Additive Manufacturing, 0, , .	1.4	2
113	Oxygen Delivery Approaches to Augment Cell Survival After Myocardial Infarction: Progress and Challenges. Cardiovascular Toxicology, 2022, 22, 207-224.	1.1	2
114	Nanofiber composites in biomolecular delivery*Short-term project student of CSCR.#Authors have equal contribution.. , 2017, , 225-252.		2
115	Advances in Induced Pluripotent Stem Cells: Nanomaterial Perspectives. Journal of Bionanoscience, 2016, 10, 163-170.	0.4	2
116	Engineering of Gradient Biomaterials as Biomimetic Systems for Tissue Engineering. Journal of Biomaterials and Tissue Engineering, 2011, 1, 139-148.	0.0	2
117	PFS-Functionalized Self-Assembling Peptide Hydrogel for the Maintenance of Human Adipose Stem Cell In Vitro. Journal of Biomaterials and Tissue Engineering, 2017, 7, 943-951.	0.0	2
118	Designing and Fast 3D Printing of Continuous Carbon Fibers for Biomedical Applications. Journal of Biomaterials and Tissue Engineering, 2019, 9, 922-928.	0.0	2
119	In Situ Osteochondral Regeneration by Controlled Release of Stromal Cell-Derived Factor-1 Chemokine from Injectable Biomaterials: A Preclinical Evaluation in Animal Model. Journal of Biomaterials and Tissue Engineering, 2019, 9, 958-967.	0.0	2
120	Microvesicles Secreted by Human Embryonic Stem Cell Derived Mesenchymal Stem Cells Promote Regeneration of Sprague-Dawley Rat Sciatic Nerve. Journal of Biomaterials and Tissue Engineering, 2020, 10, 966-970.	0.0	2
121	Exosomes in the oral and maxillofacial region. Journal of Pharmacy and Bioallied Sciences, 2020, 12, 43.	0.2	2
122	Bioactive Small Molecule Enhances Skin Burn Wound Healing and Hair Follicle Regeneration by Activating PI3K/AKT Signaling Pathway: A Preclinical Evaluation in Animal Model. Journal of Biomedical Nanotechnology, 2022, 18, 463-473.	0.5	2
123	Nanoncology: A State-of-Art Update. Journal of Bionanoscience, 2010, 4, 1-13.	0.4	1
124	Gradient Biomaterials as Tissue Scaffolds. , 2015, , 175-186.		1
125	Microfabrication and Nanofabrication Techniques. , 2015, , 207-219.		1
126	Biomimetic Nanohydroxyapatite Synthesized With/Without Tris-Buffered Simulated Body Fluid: A Comparative Analysis. Journal of Nanoscience and Nanotechnology, 2018, 18, 4423-4427.	0.9	1

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127	Design, Synthesis and in vitro Cytotoxicity Evaluation of New Fluorinated Ionic Salt (S)-(+)-2,3-Dihydro-1H-pyrrolo[2,1-c][1,4]benzodiazepine-5,11(10H,11aH)-dione as Strategies for Improving Anticonvulsant Activity. Asian Journal of Chemistry, 2020, 32, 975-980.	0.1	1
128	Development of Simvastatin Loaded Electrospun Zein Nanofiber Membranes for Bone Repair. Journal of Nanoscience and Nanotechnology, 2021, 21, 5099-5106.	0.9	1
129	Design and Stability Improvement of Pectin-Based Red Blood Cell-Mimicking Microcapsules for Oxygen Therapeutics. Journal of Biomedical Nanotechnology, 2021, 17, 1798-1805.	0.5	1
130	Improved Performance of Antiepileptic Drugs by Oxygen Enrichment Through Perfluorodecalin in Nanoscales. Advanced Science Letters, 2016, 22, 745-751.	0.2	1
131	Surface Modification of Titanium by Cobalt-Containing Plasma Electrolytic Oxidation Promotes Osteogenic Response. Journal of Biomaterials and Tissue Engineering, 2021, 11, 1524-1529.	0.0	0
132	Welcome to the <I>Journal of Biomaterials and Tissue Engineering</I>. Journal of Biomaterials and Tissue Engineering, 2011, 1, 1-2.	0.0	0
133	Autoinductive Scaffolds for Osteogenic Differentiation of Mesenchymal Stem Cells. , 2012, , 169-184.		0
134	Fabrication and Application of Gradient Hydrogels in Cell and Tissue Engineering. , 2012, , 55-78.		0
135	Non-Invasive Blood Glucose Measurement by Spectroscopy. Journal of Bionanoscience, 2018, 12, 817-821.	0.4	0
136	Effect of Remnant-Preserving Reconstruction of Acute Anterior Cruciate Ligament Injuries in a Rabbit Model: Histological and Biomechanical Analysis. Journal of Biomaterials and Tissue Engineering, 2022, 12, 897-906.	0.0	0
137	Neuroscience of peripheral nerve regeneration. Journal of Pharmacy and Bioallied Sciences, 2021, 13, 913.	0.2	0