Carlos Mota

List of Publications by Year
in descending order

68 papers	2,986 citations	186265 28 h-index	168389 53 g-index
79 all docs	79 docs citations	79 times ranked	3903 citing authors

#	Article	IF	Citations
1	Biofabrication: A Guide to Technology and Terminology. Trends in Biotechnology, 2018, 36, 384-402.	9.3	465
2	Additive manufacturing techniques for the production of tissue engineering constructs. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, 174-190.	2.7	287
3	Bioprinting: From Tissue and Organ Development to <i>in Vitro</i> Models. Chemical Reviews, 2020, 120, 10547-10607.	47.7	185
4	Thiolâ€“Ene Alginate Hydrogels as Versatile Bioinks for Bioprinting. Biomacromolecules, 2018, 19, 3390-3400.	5.4	146
5	Additive manufacturing of wet-spun polymeric scaffolds for bone tissue engineering. Biomedical Microdevices, 2012, 14, 1115-1127.	2.8	118
6	Bioprinting Vasculature: Materials, Cells and Emergent Techniques. Materials, 2019, 12, 2701.	2.9	103
7	Direct Writing Electrospinning of Scaffolds with Multidimensional Fiber Architecture for Hierarchical Tissue Engineering. ACS Applied Materials & Interfaces, 2017, 9, 38187-38200.	8.0	97
8	Viscoelastic Oxidized Alginates with Reversible Imine Type Crosslinks: Self-Healing, Injectable, and Bioprintable Hydrogels. Gels, 2018, 4, 85.	4.5	68
9	Ciprofloxacin-loaded polymeric nanoparticles incorporated electrospun fibers for drug delivery in tissue engineering applications. Drug Delivery and Translational Research, 2020, 10, 706-720.	5.8	67
10	Additive manufacturing of star poly(Îµ-caprolactone) wet-spun scaffolds for bone tissue engineering applications. Journal of Bioactive and Compatible Polymers, 2013, 28, 320-340.	2.1	66
11	Multiscale fabrication of biomimetic scaffolds for tympanic membrane tissue engineering. Biofabrication, 2015, 7, 025005.	7.1	63
12	Toward mimicking the bone structure: design of novel hierarchical scaffolds with a tailored radial porosity gradient. Biofabrication, 2016, 8, 045007.	7.1	63
13	Tuning Cell Differentiation into a 3D Scaffold Presenting a Pore Shape Gradient for Osteochondral Regeneration. Advanced Healthcare Materials, 2016, 5, 1753-1763.	7.6	62
14	Flexible Yttrium-Stabilized Zirconia Nanofibers Offer Bioactive Cues for Osteogenic Differentiation of Human Mesenchymal Stromal Cells. ACS Nano, 2016, 10, 5789-5799.	14.6	62
15	Dual-Scale Polymeric Constructs as Scaffolds for Tissue Engineering. Materials, 2011, 4, 527-542.	2.9	57
16	Design, fabrication and characterization of composite piezoelectric ultrafine fibers for cochlear stimulation. Materials and Design, 2017, 122, 206-219.	7.0	57
17	Additive manufacturing of poly[(<i>R</i>)-3-hydroxybutyrate-<i>co</i>-(<i>R</i>)-3-hydroxyhexanoate] scaffolds for engineered bone development. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 175-186.	2.7	53
18	Cell spheroids as a versatile research platform: formation mechanisms, high throughput production, characterization and applications. Biofabrication, 2021, 13, 032002.	7.1	52

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19	Melt electrospinning writing of threeâ€dimensional star poly(Ïµâ€caprolactone) scaffolds. Polymer International, 2013, 62, 893-900.	3.1	51
20	Surface energy and stiffness discrete gradients in additive manufactured scaffolds for osteochondral regeneration. Biofabrication, 2016, 8, 015014.	7.1	48
21	Improving cell distribution on 3D additive manufactured scaffolds through engineered seeding media density and viscosity. Acta Biomaterialia, 2020, 101, 183-195.	8.3	48
22	Acrylic Acid Plasma Coated 3D Scaffolds for Cartilage tissue engineering applications. Scientific Reports, 2018, 8, 3830.	3.3	44
23	Interfacing polymeric scaffolds with primary pancreatic ductal adenocarcinoma cells to develop 3D cancer models. Biomatter, 2014, 4, e955386.	2.6	42
24	3D additive manufactured composite scaffolds with antibiotic-loaded lamellar fillers for bone infection prevention and tissue regeneration. Bioactive Materials, 2021, 6, 1073-1082.	15.6	40
25	Fibrous star poly(Îµ-caprolactone) melt-electrospun scaffolds for wound healing applications. Journal of Bioactive and Compatible Polymers, 2013, 28, 492-507.	2.1	35
26	Additive manufactured polymeric 3D scaffolds with tailored surface topography influence mesenchymal stromal cells activity. Biofabrication, 2016, 8, 025012.	7.1	35
27	A hybrid additive manufacturing platform to create bulk and surface composition gradients on scaffolds for tissue regeneration. Nature Communications, 2021, 12, 500.	12.8	35
28	Tailored star poly (Îµ-caprolactone) wet-spun scaffolds for in vivo regeneration of long bone critical size defects. Journal of Bioactive and Compatible Polymers, 2016, 31, 15-30.	2.1	28
29	Bioprinting Via a Dual-Gel Bioink Based on Poly(Vinyl Alcohol) and Solubilized Extracellular Matrix towards Cartilage Engineering. International Journal of Molecular Sciences, 2021, 22, 3901.	4.1	27
30	Tissue engineering of the tympanic membrane using electrospun PEOT/PBT copolymer scaffolds: A morphological in vitro study. Hearing, Balance and Communication, 2015, 13, 133-147.	0.4	25
31	Patterning Vasculature: The Role of Biofabrication to Achieve an Integrated Multicellular Ecosystem. ACS Biomaterials Science and Engineering, 2016, 2, 1694-1709.	5.2	25
32	Tuning Cell Behavior on 3D Scaffolds Fabricated by Atmospheric Plasma-Assisted Additive Manufacturing. ACS Applied Materials & Interfaces, 2021, 13, 3631-3644.	8.0	24
33	Bioprinting of kidney <i>in vitro</i> models: cells, biomaterials, and manufacturing techniques. Essays in Biochemistry, 2021, 65, 587-602.	4.7	23
34	A novel method for engineering autologous non-thrombogenic in situ tissue-engineered blood vessels for arteriovenous grafting. Biomaterials, 2020, 229, 119577.	11.4	21
35	Controllable four axis extrusion-based additive manufacturing system for the fabrication of tubular scaffolds with tailorable mechanical properties. Materials Science and Engineering C, 2021, 119, 111472.	7.3	21
36	Microfluidic bioprinting towards a renal in vitro model. Bioprinting, 2020, 20, e00108.	5.8	20

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37	Additive Manufactured Scaffolds for Bone Tissue Engineering: Physical Characterization of Thermoplastic Composites with Functional Fillers. ACS Applied Polymer Materials, 2021, 3, 3788-3799.	4.4	17
38	Chitin Nanofibril Application in Tympanic Membrane Scaffolds to Modulate Inflammatory and Immune Response. Pharmaceutics, 2021, 13, 1440.	4.5	17
39	Scaffold-free and label-free biofabrication technology using levitational assembly in a high magnetic field. Biofabrication, 2020, 12, 045022.	7.1	16
40	Dimensionality changes actin network through lamin A/C and zyxin. Biomaterials, 2020, 240, 119854.	11.4	15
41	SCREENED: A Multistage Model of Thyroid Gland Function for Screening Endocrine-Disrupting Chemicals in a Biologically Sex-Specific Manner. International Journal of Molecular Sciences, 2020, 21, 3648.	4.1	15
42	Shaping and properties of thermoplastic scaffolds in tissue regeneration: The effect of thermal history on polymer crystallization, surface characteristics and cell fate. Journal of Materials Research, 2021, 36, 3914-3935.	2.6	15
43	Probing the pH Microenvironment of Mesenchymal Stromal Cell Cultures on Additiveâ€Manufactured Scaffolds. Small, 2020, 16, e2002258.	10.0	14
44	Mimicking the Human Tympanic Membrane: The Significance of Scaffold Geometry. Advanced Healthcare Materials, 2021, 10, e2002082.	7.6	12
45	Additive Manufacturing Using Melt Extruded Thermoplastics for Tissue Engineering. Methods in Molecular Biology, 2021, 2147, 75-99.	0.9	12
46	3D culture platform of human iPSCs-derived nociceptors for peripheral nerve modeling and tissue innervation. Biofabrication, 2022, 14, 014105.	7.1	12
47	Regenerative therapies for tympanic membrane. Progress in Materials Science, 2022, 127, 100942.	32.8	11
48	Glucose Gradients Influence Zonal Matrix Deposition in 3D Cartilage Constructs. Tissue Engineering - Part A, 2014, 20, 3270-3278.	3.1	10
49	3D fiber deposited polymeric scaffolds for external auditory canal wall. Journal of Materials Science: Materials in Medicine, 2018, 29, 63.	3.6	8
50	Development of a device useful to reproducibly produce large quantities of viable and uniform stem cell spheroids with controlled diameters. Materials Science and Engineering C, 2022, 135, 112685.	7.3	8
51	Effect of high content nanohydroxyapatite composite scaffolds prepared via melt extrusion additive manufacturing on the osteogenic differentiation of human mesenchymal stromal cells. , 2022, 137, 212833.		8
52	Decellularization of porcine heart tissue to obtain extracellular matrix based hydrogels. Methods in Cell Biology, 2020, 157, 3-21.	1.1	7
53	Fabrication of a mimetic vascular graft using melt spinning with tailorable fiber parameters. , 2022, 139, 212972.		7
54	Biofabrication: From Additive Manufacturing to Bioprinting. , 2019, , 41-41.		5

#	Article	IF	Citations
55	High Throughput Screening withÂBiofabrication Platforms. , 2015, , 187-213.		4
56	Osteochondral Regeneration: Tuning Cell Differentiation into a 3D Scaffold Presenting a Pore Shape Gradient for Osteochondral Regeneration (Adv. Healthcare Mater. 14/2016). Advanced Healthcare Materials, 2016, 5, 1832-1832.	7.6	4
57	Bioinspired Development of an In Vitro Engineered Fracture Callus for the Treatment of Critical Long Bone Defects. Advanced Functional Materials, 2021, 31, 2104159.	14.9	4
58	Development of an In Vitro Biomimetic Peripheral Neurovascular Platform. ACS Applied Materials & Interfaces, 2022, 14, 31567-31585.	8.0	4
59	Applications of bioresorbable polymers in skin and eardrum. , 2017, , 423-444.		3
60	Multiwell three-dimensional systems enable in vivo screening of immune reactions to biomaterials: a new strategy toward translational biomaterial research. Journal of Materials Science: Materials in Medicine, 2019, 30, 61.	3.6	3
61	Effect of the reduced graphene oxide (rGO) compaction degree and concentration on rGOâ€“polymer composite printability and cell interactions. Nanoscale, 2021, 13, 14382-14398.	5.6	3
62	Cholecalciferol as Bioactive Plasticizer of High Molecular Weight Poly(D,L-Lactic Acid) Scaffolds for Bone Regeneration. Tissue Engineering - Part C: Methods, 2022, 28, 335-350.	2.1	3
63	Photo-enzymatic dityrosine crosslinking for bioprinting. Polymer, 2022, , 124941.	3.8	3
64	Ear Tissue Engineering. , 2019, , 270-285.		2
65	Static systems to obtain 3D spheroid cell models: a cost analysis comparing the implementation of four types of microwell array inserts. Biochemical Engineering Journal, 2022, 182, 108414.	3.6	2
66	Size Effects in Finite Element Modelling of 3D Printed Bone Scaffolds Using Hydroxyapatite PEOT/PBT Composites. Mathematics, 2021, 9, 1746.	2.2	1
67	Bioartificial Sponges for Auricular Cartilage Engineering. Lecture Notes in Bioengineering, 2020, , 191-209.	0.4	1
68	pH Monitoring: Probing the pH Microenvironment of Mesenchymal Stromal Cell Cultures on Additiveâ€Manufactured Scaffolds (Small 34/2020). Small, 2020, 16, 2070187.	10.0	0