Vitor M Correlo

List of Publications by Year
in descending order

97 papers	4,778 citations	71097 41 h-index	102480 66 g-index
101 all docs	101 docs citations	101 times ranked	6802 citing authors

#	Article	IF	Citations
1	Cork: properties, capabilities and applications. International Materials Reviews, 2005, 50, 345-365.	19.3	499
2	Properties of melt processed chitosan and aliphatic polyester blends. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 403, 57-68.	5.6	224
3	Could 3D models of cancer enhance drug screening?. Biomaterials, 2020, 232, 119744.	11.4	165
4	Organ-on-chip models of cancer metastasis for future personalized medicine: From chip to the patient. Biomaterials, 2017, 149, 98-115.	11.4	155
5	Emerging tumor spheroids technologies for 3D in vitro cancer modeling. , 2018, 184, 201-211.		133
6	Hydrogel-Based Strategies to Advance Therapies for Chronic Skin Wounds. Annual Review of Biomedical Engineering, 2019, 21, 145-169.	12.3	122
7	Osteogenic Differentiation of Human Bone Marrow Mesenchymal Stem Cells Seeded on Melt Based Chitosan Scaffolds for Bone Tissue Engineering Applications. Biomacromolecules, 2009, 10, 2067-2073.	5.4	120
8	Skin-Integrated Wearable Systems and Implantable Biosensors: A Comprehensive Review. Biosensors, 2020, 10, 79.	4.7	120
9	Chitosan/polyester-based scaffolds for cartilage tissue engineering: Assessment of extracellular matrix formation. Acta Biomaterialia, 2010, 6, 1149-1157.	8.3	118
10	Nanoparticulate bioactive-glass-reinforced gellan-gum hydrogels for bone-tissue engineering. Materials Science and Engineering C, 2014, 43, 27-36.	7.3	110
11	Evaluating Biomaterial- and Microfluidic-Based 3D Tumor Models. Trends in Biotechnology, 2015, 33, 667-678.	9.3	99
12	Water Absorption and Degradation Characteristics of Chitosan-Based Polyesters and Hydroxyapatite Composites. Macromolecular Bioscience, 2007, 7, 354-363.	4.1	97
13	Polyhydroxybutyrate-co-hydroxyvalerate structures loaded with adipose stem cells promote skin healing with reduced scarring. Acta Biomaterialia, 2015, 17, 170-181.	8.3	95
14	Gellan Gum-Hyaluronic Acid Spongy-like Hydrogels and Cells from Adipose Tissue Synergize Promoting Neoskin Vascularization. ACS Applied Materials & Interfaces, 2014, 6, 19668-19679.	8.0	94
15	Meltâ€based compressionâ€molded scaffolds from chitosanâ€"polyester blends and composites: Morphology and mechanical properties. Journal of Biomedical Materials Research - Part A, 2009, 91A, 489-504.	4.0	89
16	Melanin nanoparticles as a promising tool for biomedical applicationsÂâ€" a review. Acta Biomaterialia, 2020, 105, 26-43.	8.3	89
17	Electric Phenomenon: A Disregarded Tool in Tissue Engineering and Regenerative Medicine. Trends in Biotechnology, 2020, 38, 24-49.	9.3	88
18	Novel corkâ€"polymer composites reinforced with short natural coconut fibres: Effect of fibre loading and coupling agent addition. Composites Science and Technology, 2013, 78, 56-62.	7.8	86

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19	Engineering cell-adhesive gellan gum spongy-like hydrogels for regenerative medicine purposes. Acta Biomaterialia, 2014, 10, 4787-4797.	8.3	81
20	In vitro degradation and in vivo biocompatibility of chitosanâ€“poly(butylene succinate) fiber mesh scaffolds. Journal of Bioactive and Compatible Polymers, 2014, 29, 137-151.	2.1	79
21	Chondrogenic differentiation of human bone marrow mesenchymal stem cells in chitosan-based scaffolds using a flow-perfusion bioreactor. Journal of Tissue Engineering and Regenerative Medicine, 2011, 5, 722-732.	2.7	78
22	3D biosensors in advanced medical diagnostics of high mortality diseases. Biosensors and Bioelectronics, 2019, 130, 20-39.	10.1	76
23	Adhesion, Proliferation, and Osteogenic Differentiation of a Mouse Mesenchymal Stem Cell Line (BMC9) Seeded on Novel Melt-Based Chitosan/Polyester 3D Porous Scaffolds. Tissue Engineering - Part A, 2008, 14, 1049-1057.	3.1	70
24	Stem Cell-Containing Hyaluronic Acid-Based Spongy Hydrogels for Integrated Diabetic Wound Healing. Journal of Investigative Dermatology, 2017, 137, 1541-1551.	0.7	68
25	Chitosan-poly(butylene succinate) scaffolds and human bone marrow stromal cells induce bone repair in a mouse calvaria model. Journal of Tissue Engineering and Regenerative Medicine, 2012, 6, 21-28.	2.7	66
26	New biotextiles for tissue engineering: Development, characterization and in vitro cellular viability. Acta Biomaterialia, 2013, 9, 8167-8181.	8.3	65
27	Hydroxyapatite Reinforced Chitosan and Polyester Blends for Biomedical Applications. Macromolecular Materials and Engineering, 2005, 290, 1157-1165.	3.6	63
28	Neovascularization Induced by the Hyaluronic Acid-Based Spongy-Like Hydrogels Degradation Products. ACS Applied Materials & Interfaces, 2016, 8, 33464-33474.	8.0	62
29	Migration of â€œbioabsorbableâ€•screws in ACL repair. How much do we know? A systematic review. Knee Surgery, Sports Traumatology, Arthroscopy, 2013, 21, 986-994.	4.2	60
30	Cork based composites using polyolefinâ€™s as matrix: Morphology and mechanical performance. Composites Science and Technology, 2010, 70, 2310-2318.	7.8	59
31	Osteogenic differentiation of two distinct subpopulations of human adipose-derived stem cells: an in vitro and in vivo study. Journal of Tissue Engineering and Regenerative Medicine, 2012, 6, 1-11.	2.7	58
32	Properties of new corkâ€“polymer composites: Advantages and drawbacks as compared with commercially available fibreboard materials. Composite Structures, 2011, 93, 3120-3120.	5.8	54
33	Anti-Cancer Drug Validation: the Contribution of Tissue Engineered Models. Stem Cell Reviews and Reports, 2017, 13, 347-363.	5.6	52
34	Mechanical Property of Hydrogels and the Presence of Adipose Stem Cells in Tumor Stroma Affect Spheroid Formation in the 3D Osteosarcoma Model. ACS Applied Materials & Interfaces, 2019, 11, 14548-14559.	8.0	51
35	Corkâ€“polymer biocomposites: Mechanical, structural and thermal properties. Materials and Design, 2015, 82, 282-289.	7.0	50
36	Gellan gumâ€hydroxyapatite composite spongyâ€like hydrogels for bone tissue engineering. Journal of Biomedical Materials Research - Part A, 2018, 106, 479-490.	4.0	50

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37	Assessment of the Suitability of Chitosan/PolyButylene Succinate Scaffolds Seeded with Mouse Mesenchymal Progenitor Cells for a Cartilage Tissue Engineering Approach. Tissue Engineering - Part A, 2008, 14, 1651-1661.	3.1	48
38	Development and Characterization of a <scp>PHB</scp>â€<scp>HV</scp>â€based 3<scp>D</scp> Scaffold for a Tissue Engineering and Cellâ€therapy Combinatorial Approach for Spinal Cord Injury Regeneration. Macromolecular Bioscience, 2013, 13, 1576-1592.	4.1	47
39	Human Skin Cell Fractions Fail to Self-Organize Within a Gellan Gum/Hyaluronic Acid Matrix but Positively Influence Early Wound Healing. Tissue Engineering - Part A, 2014, 20, 1369-1378.	3.1	46
40	Polypropylene-based corkâ€“polymer composites: Processing parameters and properties. Composites Part B: Engineering, 2014, 66, 210-223.	12.0	46
41	Custom-tailored tissue engineered polycaprolactone scaffolds for total disc replacement. Biofabrication, 2015, 7, 015008.	7.1	46
42	Bioceramics for Osteochondral Tissue Engineering and Regeneration. Advances in Experimental Medicine and Biology, 2018, 1058, 53-75.	1.6	45
43	Biodegradable Nanofibers-Reinforced Microfibrous Composite Scaffolds for Bone Tissue Engineering. Tissue Engineering - Part A, 2010, 16, 3599-3609.	3.1	42
44	Recent approaches towards bone tissue engineering. Bone, 2022, 154, 116256.	2.9	42
45	Gellan Gum Hydrogels with Enzymeâ€Sensitive Biodegradation and Endothelial Cell Biorecognition Sites. Advanced Healthcare Materials, 2018, 7, 1700686.	7.6	39
46	Simple and facile preparation of recombinant human bone morphogenetic protein-2 immobilized titanium implant via initiated chemical vapor deposition technique to promote osteogenesis for bone tissue engineering application. Materials Science and Engineering C, 2019, 100, 949-958.	7.3	39
47	Conditioned medium as a strategy for human stem cells chondrogenic differentiation. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, 714-723.	2.7	34
48	Poly(hydroxybutyrateâ€<i>co</i>â€hydroxyvalerate) Bilayer Skin Tissue Engineering Constructs with Improved Epidermal Rearrangement. Macromolecular Bioscience, 2014, 14, 977-990.	4.1	31
49	Micro/nano replication and 3D assembling techniques for scaffold fabrication. Materials Science and Engineering C, 2014, 42, 615-621.	7.3	31
50	Novel Melt-Processable Chitosanâ€“Polybutylene Succinate Fibre Scaffolds for Cartilage Tissue Engineering. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 773-788.	3.5	29
51	Human Serum is a Suitable Supplement for the Osteogenic Differentiation of Human Adipose-Derived Stem Cells Seeded on Poly-3-Hydroxibutyrate-Co-3-Hydroxyvalerate Scaffolds. Tissue Engineering - Part A, 2013, 19, 277-289.	3.1	29
52	Development of an injectable PHBV microparticles-GG hydrogel hybrid system for regenerative medicine. International Journal of Pharmaceutics, 2015, 478, 398-408.	5.2	29
53	Synthesis and Characterization of Electroactive Gellan Gum Spongy-Like Hydrogels for Skeletal Muscle Tissue Engineering Applications. Tissue Engineering - Part A, 2017, 23, 968-979.	3.1	28
54	Development of label-free plasmonic Au-TiO2 thin film immunosensor devices. Materials Science and Engineering C, 2019, 100, 424-432.	7.3	27

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55	Lactoferrin-Hydroxyapatite Containing Spongy-Like Hydrogels for Bone Tissue Engineering. Materials, 2019, 12, 2074.	2.9	24
56	Silk fibroin promotes mineralization of gellan gum hydrogels. International Journal of Biological Macromolecules, 2020, 153, 1328-1334.	7.5	24
57	Electroactive Gellan Gum/Polyaniline Spongy-Like Hydrogels. ACS Biomaterials Science and Engineering, 2018, 4, 1779-1787.	5.2	21
58	Cork: properties, capabilities and applications. International Materials Reviews, 2008, 53, 256-256.	19.3	19
59	Melt Processing of Chitosanâ€Based Fibers and Fiberâ€Mesh Scaffolds for the Engineering of Connective Tissues. Macromolecular Bioscience, 2010, 10, 1495-1504.	4.1	18
60	Differentiation of osteoclast precursors on gellan gum-based spongy-like hydrogels for bone tissue engineering. Biomedical Materials (Bristol), 2018, 13, 035012.	3.3	18
61	Bottom-up approach to construct microfabricated multi-layer scaffolds for bone tissue engineering. Biomedical Microdevices, 2014, 16, 69-78.	2.8	17
62	Eumelanin-releasing spongy-like hydrogels for skin re-epithelialization purposes. Biomedical Materials (Bristol), 2017, 12, 025010.	3.3	17
63	Micropatterned gellan gum-based hydrogels tailored with laminin-derived peptides for skeletal muscle tissue engineering. Biomaterials, 2021, 279, 121217.	11.4	17
64	Natural based eumelanin nanoparticles functionalization and preliminary evaluation as carrier for gentamicin. Reactive and Functional Polymers, 2017, 114, 38-48.	4.1	16
65	Micropatterned Silk-Fibroin/Eumelanin Composite Films for Bioelectronic Applications. ACS Biomaterials Science and Engineering, 2021, 7, 2466-2474.	5.2	16
66	Osteogenic properties of starch poly(Îµâ€caprolactone) (SPCL) fiber meshes loaded with osteoblastâ€like cells in a rat criticalâ€sized cranial defect. Journal of Biomedical Materials Research - Part A, 2013, 101, 3059-3065.	4.0	15
67	Redox activity of melanin from the ink sac of<i>Sepia officinalis</i>by means of colorimetric oxidative assay. Natural Product Research, 2016, 30, 982-986.	1.8	14
68	An Outlook on Implantable Biosensors for Personalized Medicine. Engineering, 2021, 7, 1696-1699.	6.7	13
69	Adhesion, Proliferation, and Osteogenic Differentiation of a Mouse Mesenchymal Stem Cell Line (BMC9) Seeded on Novel Melt-Based Chitosan/Polyester 3D Porous Scaffolds. Tissue Engineering - Part A, 2008, 14, 080423075413219.	3.1	13
70	Injectable laminin-biofunctionalized gellan gum hydrogels loaded with myoblasts for skeletal muscle regeneration. Acta Biomaterialia, 2022, 143, 282-294.	8.3	13
71	Eumelanin Nanoparticle-Incorporated Polyvinyl Alcohol Nanofibrous Composite as an Electroconductive Scaffold for Skeletal Muscle Tissue Engineering. ACS Applied Bio Materials, 2018, 1, 1893-1905.	4.6	12
72	Natural Origin Materials for Bone Tissue Engineering. , 2019, , 535-558.		12

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73	Electro-responsive controlled drug delivery from melanin nanoparticles. International Journal of Pharmaceutics, 2020, 588, 119773.	5.2	11
74	Tumor-Stroma Interactions Alter the Sensitivity of Drug in Breast Cancer. Frontiers in Materials, 2020, 7, .	2.4	11
75	Current nanotechnology advances in diagnostic biosensors. Medical Devices & Sensors, 2021, 4, e10156.	2.7	11
76	Tumorâ€Associated Protrusion Fluctuations as a Signature of Cancer Invasiveness. Advanced Biology, 2021, 5, e2101019.	2.5	11
77	In Vitro Cancer Models: A Closer Look at Limitations on Translation. Bioengineering, 2022, 9, 166.	3.5	11
78	Clinical Trials and Management of Osteochondral Lesions. Advances in Experimental Medicine and Biology, 2018, 1058, 391-413.	1.6	10
79	A SERS-based 3D nanobiosensor: towards cell metabolite monitoring. Materials Advances, 2020, 1, 1613-1621.	5.4	10
80	The Crosstalk between Tissue Engineering and Pharmaceutical Biotechnology: Recent Advances and Future Directions. Current Pharmaceutical Biotechnology, 2015, 16, 1012-1023.	1.6	9
81	Influence of scaffold composition over inÂvitro osteogenic differentiation of hBMSCs and inÂvivo inflammatory response. Journal of Biomaterials Applications, 2014, 28, 1430-1442.	2.4	8
82	Development of an antibiotics delivery system for topical treatment of the neglected tropical disease Buruli ulcer. International Journal of Pharmaceutics, 2022, 623, 121954.	5.2	8
83	Effect of Melanomal Proteins on Sepia Melanin Assembly. Journal of Macromolecular Science - Physics, 2015, 54, 1532-1540.	1.0	7
84	Influence of gellan gum-hydroxyapatite spongy-like hydrogels on human osteoblasts under long-term osteogenic differentiation conditions. Materials Science and Engineering C, 2021, 129, 112413.	7.3	7
85	Improved vascularisation but inefficient in vivo bone regeneration of adipose stem cells and poly-3-hydroxybutyrate-co-3-hydroxyvalerate scaffolds in xeno-free conditions. Materials Science and Engineering C, 2020, 107, 110301.	7.3	6
86	<scp>3D</scp> bioprinting of gellan gumâ€based hydrogels tethered with lamininâ€derived peptides for improved cellular behavior. Journal of Biomedical Materials Research - Part A, 2022, 110, 1655-1668.	4.0	6
87	Epidermis recreation in spongy-like hydrogels. Materials Today, 2015, 18, 468-469.	14.2	5
88	Gene expression changes are associated with severe bone loss and deficient fracture callus formation in rats with complete spinal cord injury. Spinal Cord, 2020, 58, 365-376.	1.9	5
89	Electroactive polyamide/cotton fabrics for biomedical applications. Organic Electronics, 2020, 77, 105401.	2.6	4
90	Bovine Colostrum Supplementation Improves Bone Metabolism in an Osteoporosis-Induced Animal Model. Nutrients, 2021, 13, 2981.	4.1	4

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91	adipoSIGHT in Therapeutic Response: Consequences in Osteosarcoma Treatment. Bioengineering, 2021, 8, 83.	3.5	3
92	Natural Fibres as Reinforcement Strategy on Cork-Polymer Composites. Materials Science Forum, 2012, 730-732, 373-378.	0.3	2
93	Microfluidic Devices and Three Dimensional-Printing Strategies for in vitro Models of Bone. Advances in Experimental Medicine and Biology, 2020, 1230, 1-14.	1.6	2
94	Forecast cancer: the importance of biomimetic 3D in vitro models in cancer drug testing/discovery and therapy. In Vitro Models, 2022, 1, 119-123.	2.0	2
95	Pharmacological and Non-Pharmacological Agents versus Bovine Colostrum Supplementation for the Management of Bone Health Using an Osteoporosis-Induced Rat Model. Nutrients, 2022, 14, 2837.	4.1	2
96	350 Natural melanin promotes the differentiation of an early epidermal cell fraction and the scavenging of ROS. Journal of Investigative Dermatology, 2016, 136, S61.	0.7	0
97	Quantifying protrusions as tumor-specific biophysical predictors of cancer invasion in in vitro tumor micro-spheroid models. In Vitro Models, 0, , .	2.0	0