

Manus J Biggs

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

48
papers

2,648
citations

25
h-index

51
g-index

55
ext. papers

2,971
ext. citations

8.7
avg, IF

5
L-index

#	Paper	IF	Citations
48	Nanotopographical modification: a regulator of cellular function through focal adhesions. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2010 , 6, 619-33	6	391
47	Biomimetic approaches in bone tissue engineering: Integrating biological and physicommechanical strategies. <i>Advanced Drug Delivery Reviews</i> , 2015 , 84, 1-29	18.5	286
46	The use of nanoscale topography to modulate the dynamics of adhesion formation in primary osteoblasts and ERK/MAPK signalling in STRO-1+ enriched skeletal stem cells. <i>Biomaterials</i> , 2009 , 30, 5094-103	15.6	222
45	Interactions with nanoscale topography: adhesion quantification and signal transduction in cells of osteogenic and multipotent lineage. <i>Journal of Biomedical Materials Research - Part A</i> , 2009 , 91, 195-208	5.4	142
44	Adhesion formation of primary human osteoblasts and the functional response of mesenchymal stem cells to 330nm deep microgrooves. <i>Journal of the Royal Society Interface</i> , 2008 , 5, 1231-42	4.1	138
43	The role of microtopography in cellular mechanotransduction. <i>Biomaterials</i> , 2012 , 33, 2835-47	15.6	123
42	Nanotopographical stimulation of mechanotransduction and changes in interphase centromere positioning. <i>Journal of Cellular Biochemistry</i> , 2007 , 100, 326-38	4.7	122
41	The effects of nanoscale pits on primary human osteoblast adhesion formation and cellular spreading. <i>Journal of Materials Science: Materials in Medicine</i> , 2007 , 18, 399-404	4.5	121
40	The past, present and future in scaffold-based tendon treatments. <i>Advanced Drug Delivery Reviews</i> , 2015 , 84, 257-77	18.5	120
39	Responsive Biomaterials: Advances in Materials Based on Shape-Memory Polymers. <i>Advanced Materials</i> , 2016 , 28, 5717-24	24	117
38	Regulation of implant surface cell adhesion: characterization and quantification of S-phase primary osteoblast adhesions on biomimetic nanoscale substrates. <i>Journal of Orthopaedic Research</i> , 2007 , 25, 273-82	3.8	103
37	Stimulation of 3D osteogenesis by mesenchymal stem cells using a nanovibrational bioreactor. <i>Nature Biomedical Engineering</i> , 2017 , 1, 758-770	19	58
36	Substrate topography: A valuable in vitro tool, but a clinical red herring for in vivo tenogenesis. <i>Acta Biomaterialia</i> , 2015 , 27, 3-12	10.8	52
35	Osteogenic lineage restriction by osteoprogenitors cultured on nanometric grooved surfaces: the role of focal adhesion maturation. <i>Acta Biomaterialia</i> , 2014 , 10, 651-60	10.8	51
34	Biofunctionalisation of electrically conducting polymers. <i>Drug Discovery Today</i> , 2014 , 19, 88-94	8.8	48
33	Harnessing Hierarchical Nano- and Micro-Fabrication Technologies for Musculoskeletal Tissue Engineering. <i>Advanced Healthcare Materials</i> , 2015 , 4, 2488-99	10.1	46
32	Nanocellulose reinforced gellan-gum hydrogels as potential biological substitutes for annulus fibrosus tissue regeneration. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2018 , 14, 897-908	6	40

31	The influence of anisotropic nano- to micro-topography on in vitro and in vivo osteogenesis. <i>Nanomedicine</i> , 2015 , 10, 693-711	5.6	37
30	In Vitro Enzymatic Degradation of Tissue Grafts and Collagen Biomaterials by Matrix Metalloproteinases: Improving the Collagenase Assay. <i>ACS Biomaterials Science and Engineering</i> , 2017 , 3, 1922-1932	5.5	32
29	Effects of Polydopamine Functionalization on Boron Nitride Nanotube Dispersion and Cytocompatibility. <i>Bioconjugate Chemistry</i> , 2015 , 26, 2025-37	6.3	32
28	The effect of annealing on the mechanical properties and microstructural evolution of Ti-rich NiTi shape memory alloy. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016 , 662, 564-577	5.3	28
27	PEDOT:PSS interfaces stabilised using a PEGylated crosslinker yield improved conductivity and biocompatibility. <i>Journal of Materials Chemistry B</i> , 2019 , 7, 4811-4820	7.3	28
26	High-resolution imaging of the immunological synapse and T-cell receptor microclustering through microfabricated substrates. <i>Journal of the Royal Society Interface</i> , 2011 , 8, 1462-71	4.1	28
25	Focal adhesion interactions with topographical structures: a novel method for immuno-SEM labelling of focal adhesions in S-phase cells. <i>Journal of Microscopy</i> , 2008 , 231, 28-37	1.9	25
24	Effect of different stages of deformation on the microstructure evolution of Ti-rich NiTi shape memory alloy. <i>Materials Characterization</i> , 2017 , 125, 51-66	3.9	24
23	An academic, clinical and industrial update on electrospun, additive manufactured and imprinted medical devices. <i>Expert Review of Medical Devices</i> , 2015 , 12, 601-12	3.5	24
22	Attenuated Glial Reactivity on Topographically Functionalized Poly(3,4-Ethylenedioxythiophene):P-Toluene Sulfonate (PEDOT:PTS) Neuroelectrodes Fabricated by Microimprint Lithography. <i>Small</i> , 2018 , 14, e1800863	11	18
21	The Functional Response of Mesenchymal Stem Cells to Electron-Beam Patterned Elastomeric Surfaces Presenting Micrometer to Nanoscale Heterogeneous Rigidity. <i>Advanced Materials</i> , 2017 , 29, 1702119	24	18
20	Fractal form PEDOT/Au assemblies as thin-film neural interface materials. <i>Biomedical Materials (Bristol)</i> , 2018 , 13, 054102	3.5	17
19	An insight into morphometric descriptors of cell shape that pertain to regenerative medicine. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016 , 10, 539-53	4.4	14
18	Study of the microstructure evolution of heat treated Ti-rich NiTi shape memory alloy. <i>Materials Characterization</i> , 2016 , 112, 11-19	3.9	13
17	Preparation of Cytocompatible ITO Neuroelectrodes with Enhanced Electrochemical Characteristics Using a Facile Anodic Oxidation Process. <i>Advanced Functional Materials</i> , 2018 , 28, 1605035	15.6	12
16	2D imprinted substrates and 3D electrospun scaffolds revolutionize biomedicine. <i>Nanomedicine</i> , 2016 , 11, 989-92	5.6	11
15	Stable tissue-mimicking materials and an anatomically realistic, adjustable head phantom for electrical impedance tomography. <i>Biomedical Physics and Engineering Express</i> , 2018 , 4, 015003	1.5	8
14	Enhanced osteoconductivity on electrically charged titanium implants treated by physicochemical surface modifications methods. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2019 , 18, 1-10	6	7

13	A Self-Powered Piezo-Bioelectric Device Regulates Tendon Repair-Associated Signaling Pathways through Modulation of Mechanosensitive Ion Channels. <i>Advanced Materials</i> , 2021 , 33, e2008788	24	7
12	Effects of isothermal crystallization on the mechanical properties of a elastomeric medium chain length polyhydroxyalkanoate. <i>European Polymer Journal</i> , 2016 , 85, 401-410	5.2	6
11	Chirality-sorted carbon nanotube films as high capacity electrode materials.. <i>RSC Advances</i> , 2018 , 8, 30607-30609	9.7	69
10	Benefits of Polydopamine as Particle/Matrix Interface in Polylactide/PD-BaSO Scaffolds. <i>International Journal of Molecular Sciences</i> , 2020 , 21,	6.3	5
9	Advances in Functional Assemblies for Regenerative Medicine. <i>Advanced Healthcare Materials</i> , 2015 , 4, 2500-19	10.1	4
8	Ultrasound-Powered Implants: A Critical Review of Piezoelectric Material Selection and Applications. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2100986	10.1	4
7	Engineering Anisotropic 2D and 3D Structures for Tendon Repair and Regeneration 2015 , 225-242		3
6	Laser-Induced Periodic Surface Structure Enhances Neuroelectrode Charge Transfer Capabilities and Modulates Astrocyte Function. <i>ACS Biomaterials Science and Engineering</i> , 2020 , 6, 1449-1461	5.5	2
5	Data on in vitro and in vivo cell orientation on substrates with different topographies. <i>Data in Brief</i> , 2015 , 5, 379-82	1.2	2
4	Resident Macrophages and Their Potential in Cardiac Tissue Engineering. <i>Tissue Engineering - Part B: Reviews</i> , 2021 ,	7.9	2
3	Biological Activity on Piezoelectric PVDF 2016 , 167-176		1
2	Understanding the Mechanobiology of Gliosis May Be the Key to Unlocking Sustained Chronic Performance of Bioelectronic Neural Interfaces. <i>Advanced NanoBiomed Research</i> , 2022 , 2, 2100098	0	0
1	A Self-Powered Piezo-Bioelectric Device Regulates Tendon Repair-Associated Signaling Pathways through Modulation of Mechanosensitive Ion Channels (Adv. Mater. 40/2021). <i>Advanced Materials</i> , 2021 , 33, 2170315	24	