Matthew Dalby

List of Publications by Year
in descending order

220 papers	17,275 citations	13865 67 h-index	15732 125 g-index
232 all docs	232 docs citations	232 times ranked	15566 citing authors

#	Article	IF	Citations
1	The control of human mesenchymal cell differentiation using nanoscale symmetry and disorder. Nature Materials, 2007, 6, 997-1003.	27.5	2,177
2	Harnessing nanotopography and integrinâ€“matrix interactions to influence stem cell fate. Nature Materials, 2014, 13, 558-569.	27.5	921
3	Nanoscale surfaces for the long-term maintenance of mesenchymal stem cell phenotype and multipotency. Nature Materials, 2011, 10, 637-644.	27.5	710
4	In vitro reaction of endothelial cells to polymer demixed nanotopography. Biomaterials, 2002, 23, 2945-2954.	11.4	442
5	Nanotopographical modification: a regulator of cellular function through focal adhesions. Nanomedicine: Nanotechnology, Biology, and Medicine, 2010, 6, 619-633.	3.3	426
6	Nucleus alignment and cell signaling in fibroblasts: response to a micro-grooved topography. Experimental Cell Research, 2003, 284, 272-280.	2.6	358
7	Bone grafting, orthopaedic biomaterials, and the clinical need for bone engineering. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 1329-1343.	1.8	341
8	Increasing Fibroblast Response to Materials Using Nanotopography: Morphological and Genetic Measurements of Cell Response to 13-nm-High Polymer Demixed Islands. Experimental Cell Research, 2002, 276, 1-9.	2.6	337
9	Nanotopographical Control of Stem Cell Differentiation. Journal of Tissue Engineering, 2010, 1, 120623.	5.5	276
10	Cells React to Nanoscale Order and Symmetry in Their Surroundings. IEEE Transactions on Nanobioscience, 2004, 3, 61-65.	3.3	268
11	Investigating filopodia sensing using arrays of defined nano-pits down to 35 nm diameter in size. International Journal of Biochemistry and Cell Biology, 2004, 36, 2005-2015.	2.8	264
12	Investigating the limits of filopodial sensing: a brief report using SEM to image the interaction between 10 nm high nanoâ€topography and fibroblast filopodia. Cell Biology International, 2004, 28, 229-236.	3.0	262
13	Polymer-Demixed Nanotopography: Control of Fibroblast Spreading and Proliferation. Tissue Engineering, 2002, 8, 1099-1108.	4.6	251
14	Fibroblast reaction to island topography: changes in cytoskeleton and morphology with time. Biomaterials, 2003, 24, 927-935.	11.4	248
15	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. Biomaterials, 2009, 30, 5094-5103.	11.4	248
16	Fabrication of pillar-like titania nanostructures on titanium and their interactions with human skeletal stem cells. Acta Biomaterialia, 2009, 5, 1433-1441.	8.3	246
17	Rapid fibroblast adhesion to 27nm high polymer demixed nano-topography. Biomaterials, 2004, 25, 77-83.	11.4	218
18	Relative influence of surface topography and surface chemistry on cell response to bone implant materials. Part 2: Biological aspects. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 1487-1507.	1.8	185

#	Article	IF	Citations
19	Topographically induced direct cell mechanotransduction. Medical Engineering and Physics, 2005, 27, 730-742.	1.7	182
20	Multifunctional Coatings and Nanotopographies: Toward Cell Instructive and Antibacterial Implants. Advanced Healthcare Materials, 2019, 8, e1801103.	7.6	172
21	Tunable Supramolecular Hydrogels for Selection of Lineage-Guiding Metabolites in Stem Cell Cultures. CheM, 2016, 1, 298-319.	11.7	170
22	Adhesion formation of primary human osteoblasts and the functional response of mesenchymal stem cells to 330â€Šnm deep microgrooves. Journal of the Royal Society Interface, 2008, 5, 1231-1242.	3.4	156
23	Increasing hydroxyapatite incorporation into poly(methylmethacrylate) cement increases osteoblast adhesion and response. Biomaterials, 2002, 23, 569-576.	11.4	146
24	Use of nanotopography to study mechanotransduction in fibroblasts â€" methods and perspectives. European Journal of Cell Biology, 2004, 83, 159-169.	3.6	146
25	The role of microtopography in cellular mechanotransduction. Biomaterials, 2012, 33, 2835-2847.	11.4	139
26	Impact of surface topography and coating on osteogenesis and bacterial attachment on titanium implants. Journal of Tissue Engineering, 2018, 9, 204173141879069.	5.5	139
27	The influence of transferrin stabilised magnetic nanoparticles on human dermal fibroblasts in culture. International Journal of Pharmaceutics, 2004, 269, 211-225.	5.2	135
28	Nanotopographical stimulation of mechanotransduction and changes in interphase centromere positioning. Journal of Cellular Biochemistry, 2007, 100, 326-338.	2.6	135
29	The effects of nanoscale pits on primary human osteoblast adhesion formation and cellular spreading. Journal of Materials Science: Materials in Medicine, 2007, 18, 399-404.	3.6	132
30	Attempted endocytosis of nano-environment produced by colloidal lithography by human fibroblasts. Experimental Cell Research, 2004, 295, 387-394.	2.6	129
31	Nanotopographical Induction of Osteogenesis through Adhesion, Bone Morphogenic Protein Cosignaling, and Regulation of MicroRNAs. ACS Nano, 2014, 8, 9941-9953.	14.6	129
32	Microbiota Supplementation with Bifidobacterium and Lactobacillus Modifies the Preterm Infant Gut Microbiota and Metabolome: An Observational Study. Cell Reports Medicine, 2020, 1, 100077.	6.5	119
33	Initial interaction of osteoblasts with the surface of a hydroxyapatite-poly(methylmethacrylate) cement. Biomaterials, 2001, 22, 1739-1747.	11.4	116
34	Using Nanotopography and Metabolomics to Identify Biochemical Effectors of Multipotency. ACS Nano, 2012, 6, 10239-10249.	14.6	114
35	Osteogenesis of Mesenchymal Stem Cells by Nanoscale Mechanotransduction. ACS Nano, 2013, 7, 2758-2767.	14.6	114
36	A tough act to follow: collagen hydrogel modifications to improve mechanical and growth factor loading capabilities. Materials Today Bio, 2021, 10, 100098.	5.5	114

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37	Nanotopographical Control of Human Osteoprogenitor Differentiation. Current Stem Cell Research and Therapy, 2007, 2, 129-138.	1.3	112
38	Skeletal stem cell physiology on functionally distinct titania nanotopographies. Biomaterials, 2011, 32, 7403-7410.	11.4	112
39	Osteoblast behaviour on HA/PE composite surfaces with different HA volumes. Biomaterials, 2002, 23, 101-107.	11.4	108
40	Regulation of implant surface cell adhesion: characterization and quantification of S-phase primary osteoblast adhesions on biomimetic nanoscale substrates. Journal of Orthopaedic Research, 2007, 25, 273-282.	2.3	107
41	Designing stem cell niches for differentiation and self-renewal. Journal of the Royal Society Interface, 2018, 15, 20180388.	3.4	107
42	Protein Adsorption as a Key Mediator in the Nanotopographical Control of Cell Behavior. ACS Nano, 2016, 10, 6638-6647.	14.6	105
43	Material-driven fibronectin assembly for high-efficiency presentation of growth factors. Science Advances, 2016, 2, e1600188.	10.3	104
44	Fibroblast response to a controlled nanoenvironment produced by colloidal lithography. Journal of Biomedical Materials Research Part B, 2004, 69A, 314-322.	3.1	100
45	Nanotopographical Effects on Mesenchymal Stem Cell Morphology and Phenotype. Journal of Cellular Biochemistry, 2014, 115, 380-390.	2.6	100
46	Osteogenic and bactericidal surfaces from hydrothermal titania nanowires on titanium substrates. Scientific Reports, 2016, 6, 36857.	3.3	100
47	The response of fibroblasts to hexagonal nanotopography fabricated by electron beam lithography. Journal of Biomedical Materials Research - Part A, 2008, 84A, 973-979.	4.0	96
48	Receptor control in mesenchymal stem cell engineering. Nature Reviews Materials, 2018, 3, .	48.7	96
49	Nanomechanotransduction and Interphase Nuclear Organization influence on genomic control. Journal of Cellular Biochemistry, 2007, 102, 1234-1244.	2.6	93
50	Dynamic Surfaces for the Study of Mesenchymal Stem Cell Growth through Adhesion Regulation. ACS Nano, 2016, 10, 6667-6679.	14.6	93
51	Cell signaling arising from nanotopography: implications for nanomedical devices. Nanomedicine, 2006, 1, 67-72.	3.3	89
52	Biomimetic microtopography to enhance osteogenesis in vitro. Acta Biomaterialia, 2011, 7, 2919-2925.	8.3	89
53	2D and 3D Nanopatterning of Titanium for Enhancing Osteoinduction of Stem Cells at Implant Surfaces. Advanced Healthcare Materials, 2013, 2, 1285-1293.	7.6	89
54	Genomic expression of mesenchymal stem cells to altered nanoscale topographies. Journal of the Royal Society Interface, 2008, 5, 1055-1065.	3.4	88

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55	The fibroblast response to tubes exhibiting internal nanotopography. Biomaterials, 2005, 26, 4985-4992.	11.4	86
56	Whole proteome analysis of osteoprogenitor differentiation induced by disordered nanotopography and mediated by ERK signalling. Biomaterials, 2009, 30, 4723-4731.	11.4	86
57	Focal adhesions in osteoneogenesis. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 1441-1453.	1.8	85
58	Nanotopographical Cues Augment Mesenchymal Differentiation of Human Embryonic Stem Cells. Small, 2013, 9, 2140-2151.	10.0	84
59	Different types of soluble fermentable dietary fibre decrease food intake, body weight gain and adiposity in young adult male rats. Nutrition and Metabolism, 2014, 11, 36.	3.0	84
60	Cell response to nano-islands produced by polymer demixing: a brief review. IET Nanobiotechnology, 2004, 151, 53.	2.1	83
61	Morphological and microarray analysis of human fibroblasts cultured on nanocolumns produced by colloidal lithography. , 2005, 9, 1-8.		80
62	Stimulation of 3D osteogenesis by mesenchymal stem cells using a nanovibrational bioreactor. Nature Biomedical Engineering, 2017, 1, 758-770.	22.5	77
63	Relative influence of surface topography and surface chemistry on cell response to bone implant materials. Part 1: Physico-chemical effects. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 1471-1486.	1.8	76
64	The Plot Thickens: The Emerging Role of Matrix Viscosity in Cell Mechanotransduction. Advanced Healthcare Materials, 2020, 9, e1901259.	7.6	75
65	In vitro evaluation of a new polymethylmethacrylate cement reinforced with hydroxyapatite. Journal of Materials Science: Materials in Medicine, 1999, 10, 793-796.	3.6	71
66	Nonadhesive nanotopography: Fibroblast response to poly(n-butyl methacrylate)-poly(styrene) demixed surface features. Journal of Biomedical Materials Research Part B, 2003, 67A, 1025-1032.	3.1	71
67	Cell-Imprinted Substrates Act as an Artificial Niche for Skin Regeneration. ACS Applied Materials & Interfaces, 2014, 6, 13280-13292.	8.0	70
68	Using biomaterials to study stem cell mechanotransduction, growth and differentiation. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, 528-539.	2.7	69
69	In vitro response of osteoblasts to hydroxyapatite-reinforced polyethylene composites. Journal of Materials Science: Materials in Medicine, 1998, 9, 845-848.	3.6	65
70	Regulation of stem cell fate by nanomaterial substrates. Nanomedicine, 2015, 10, 829-847.	3.3	65
71	Engineered 3D hydrogels with full-length fibronectin that sequester and present growth factors. Biomaterials, 2020, 252, 120104.	11.4	64
72	Investigation of the limits of nanoscale filopodial interactions. Journal of Tissue Engineering, 2014, 5, 204173141453617.	5.5	62

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73	Analysis of Osteoclastogenesis/Osteoblastogenesis on Nanotopographical Titania Surfaces. Advanced Healthcare Materials, 2016, 5, 947-955.	7.6	62
74	Optimizing HAPEXâ„¢ Topography Influences Osteoblast Response. Tissue Engineering, 2002, 8, 453-467.	4.6	61
75	Engineered microenvironments for synergistic VEGF â€" Integrin signalling during vascularization. Biomaterials, 2017, 126, 61-74.	11.4	61
76	Mesenchymal Stem Cell Fate: Applying Biomaterials for Control of Stem Cell Behavior. Frontiers in Bioengineering and Biotechnology, 2016, 4, 38.	4.1	60
77	A genomics approach in determining nanotopographical effects on MSC phenotype. Biomaterials, 2013, 34, 2177-2184.	11.4	59
78	Osteogenic lineage restriction by osteoprogenitors cultured on nanometric grooved surfaces: The role of focal adhesion maturation. Acta Biomaterialia, 2014, 10, 651-660.	8.3	58
79	Osteoprogenitor response to low-adhesion nanotopographies originally fabricated by electron beam lithography. Journal of Materials Science: Materials in Medicine, 2007, 18, 1211-1218.	3.6	56
80	Magnetically levitated mesenchymal stem cell spheroids cultured with a collagen gel maintain phenotype and quiescence. Journal of Tissue Engineering, 2017, 8, 204173141770442.	5.5	55
81	A novel metabolomic approach used for the comparison of Staphylococcus aureus planktonic cells and biofilm samples. Metabolomics, 2016, 12, 75.	3.0	53
82	Bacteriaâ€Based Materials for Stem Cell Engineering. Advanced Materials, 2018, 30, e1804310.	21.0	52
83	Bioactive composites for bone tissue engineering. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 1359-1372.	1.8	51
84	Cell behaviour of rat calvaria bone cells on surfaces with random nanometric features. Materials Science and Engineering C, 2003, 23, 337-340.	7.3	50
85	The effect of the RACK1 signalling protein on the regulation of cell adhesion and cell contact guidance on nanometric grooves. Biomaterials, 2008, 29, 282-289.	11.4	50
86	Nanoscale Coatings for Ultralow Dose BMPâ€2â€Driven Regeneration of Criticalâ€Sized Bone Defects. Advanced Science, 2019, 6, 1800361.	11.2	50
87	Nanotopography controls cell cycle changes involved with skeletal stem cell self-renewal and multipotency. Biomaterials, 2017, 116, 10-20.	11.4	49
88	Surface topography and HA filler volume effect on primary human osteoblasts in vitro. Journal of Materials Science: Materials in Medicine, 2000, 11, 805-810.	3.6	48
89	Luminal Surface Engineering, â€˜Micro and Nanopatterningâ€™: Potential for Self Endothelialising Vascular Grafts?. European Journal of Vascular and Endovascular Surgery, 2014, 47, 566-576.	1.5	48
90	The influence of nanotopography on cell behaviour through interactions with the extracellular matrix â€" A review. Bioactive Materials, 2022, 15, 145-159.	15.6	48

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91	Initial attachment of osteoblasts to an optimised HAPEXâ„¢ topography. Biomaterials, 2002, 23, 681-690.	11.4	47
92	Nanotopography â€“ potential relevance in the stem cell niche. Biomaterials Science, 2014, 2, 1574-1594.	5.4	47
93	Synergistic growth factor microenvironments. Chemical Communications, 2016, 52, 13327-13336.	4.1	46
94	The interaction of human bone marrow cells with nanotopographical features in three dimensional constructs. Journal of Biomedical Materials Research - Part A, 2006, 79A, 431-439.	4.0	45
95	Interactions of human blood and tissue cell types with 95-nm-high nanotopography. IEEE Transactions on Nanobioscience, 2002, 1, 18-23.	3.3	42
96	Antibiotic-induced disturbances of the gut microbiota result in accelerated breast tumor growth. IScience, 2021, 24, 103012.	4.1	41
97	Nacre Topography Produces Higher Crystallinity in Bone than Chemically Induced Osteogenesis. ACS Nano, 2017, 11, 6717-6727.	14.6	40
98	Cellular response to low adhesion nanotopographies. International Journal of Nanomedicine, 2007, 2, 373-81.	6.7	40
99	Surface mobility regulates skeletal stem cell differentiation. Integrative Biology (United Kingdom), 2012, 4, 531.	1.3	39
100	Fibroblast signaling events in response to nanotopography: a gene array study. IEEE Transactions on Nanobioscience, 2002, 1, 12-17.	3.3	38
101	Tubes with Controllable Internal Nanotopography. Advanced Materials, 2004, 16, 1857-1860.	21.0	38
102	Nanostructured surfaces: cell engineering and cell biology. Nanomedicine, 2009, 4, 247-248.	3.3	38
103	Bioreactors for bone tissue engineering. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 1523-1532.	1.8	38
104	Titanium nanofeaturing for enhanced bioactivity of implanted orthopedic and dental devices. Nanomedicine, 2013, 8, 89-104.	3.3	38
105	Proteomic analysis of human osteoprogenitor response to disordered nanotopography. Journal of the Royal Society Interface, 2009, 6, 1075-1086.	3.4	35
106	Serially coupling hydrophobic interaction and reversed-phase chromatography with simultaneous gradients provides greater coverage of the metabolome. Metabolomics, 2015, 11, 1465-1470.	3.0	35
107	Nanopatterned Titanium Implants Accelerate Bone Formation In Vivo. ACS Applied Materials & Interfaces, 2020, 12, 33541-33549.	8.0	35
108	In vitro cellular response to titanium electrochemically coated with hydroxyapatite compared to titanium with three different levels of surface roughness. Journal of Materials Science: Materials in Medicine, 2003, 14, 511-519.	3.6	34

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109	Detection and identification of putative bacterial endosymbionts and endogenous viruses in tick cell lines. Ticks and Tick-borne Diseases, 2012, 3, 137-146.	2.7	34
110	Group analysis of regulation of fibroblast genome on low-adhesion nanostructures. Biomaterials, 2007, 28, 1761-1769.	11.4	33
111	Photoperiod Regulates Lean Mass Accretion, but Not Adiposity, in Growing F344 Rats Fed a High Fat Diet. PLoS ONE, 2015, 10, e0119763.	2.5	33
112	Nanotopography and Plasma Treatment: Redesigning the Surface for Vascular Graft Endothelialisation. European Journal of Vascular and Endovascular Surgery, 2015, 49, 335-343.	1.5	33
113	Development of a Virtual Cell Model to Predict Cell Response to Substrate Topography. ACS Nano, 2017, 11, 9084-9092.	14.6	33
114	Nanovibrational Stimulation of Mesenchymal Stem Cells Induces Therapeutic Reactive Oxygen Species and Inflammation for Three-Dimensional Bone Tissue Engineering. ACS Nano, 2020, 14, 10027-10044.	14.6	33
115	Sensing the Difference: The Influence of Anisotropic Cues on Cell Behavior. Frontiers in Materials, 2015, 2, .	2.4	32
116	Mesenchymal stem cell-derived extracellular vesicles may promote breast cancer cell dormancy. Journal of Tissue Engineering, 2018, 9, 204173141881009.	5.5	32
117	Osteoblast response to disordered nanotopography. Journal of Tissue Engineering, 2018, 9, 204173141878409.	5.5	31
118	Adhesion and migration of cells responding to microtopography. Journal of Biomedical Materials Research - Part A, 2015, 103, 1659-1668.	4.0	30
119	Hybrid coreâ€“shell scaffolds for bone tissue engineering. Biomedical Materials (Bristol), 2019, 14, 025008.	3.3	30
120	Nanoprinting onto cells. Journal of the Royal Society Interface, 2006, 3, 393-398.	3.4	29
121	Lateral Chain Length in Polyalkyl Acrylates Determines the Mobility of Fibronectin at the Cell/Material Interface. Langmuir, 2016, 32, 800-809.	3.5	29
122	Engineered coatings for titanium implants to present ultra-low doses of BMP-7. ACS Biomaterials Science and Engineering, 2018, 4, 1812-1819.	5.2	29
123	Fluorescence two-dimensional difference gel electrophoresis for biomaterial applications. Journal of the Royal Society Interface, 2010, 7, S107-18.	3.4	28
124	Towards the cell-instructive bactericidal substrate: exploring the combination of nanotopographical features and integrin selective synthetic ligands. Scientific Reports, 2017, 7, 16363.	3.3	28
125	Engineered Fullâ€Length Fibronectinâ€“Hyaluronic Acid Hydrogels for Stem Cell Engineering. Advanced Healthcare Materials, 2020, 9, e2000989.	7.6	28
126	You Talking to Me? Cadherin and Integrin Crosstalk in Biomaterial Design. Advanced Healthcare Materials, 2021, 10, e2002048.	7.6	28

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127	Focal adhesion interactions with topographical structures: a novel method for immunoâ€SEM labelling of focal adhesions in Sâ€phase cells. Journal of Microscopy, 2008, 231, 28-37.	1.8	27
128	Can common adhesion molecules and microtopography affect cellular elasticity? A combined atomic force microscopy and optical study. Medical and Biological Engineering and Computing, 2010, 48, 1043-1053.	2.8	27
129	Metabolomics: a valuable tool for stem cell monitoring in regenerative medicine. Journal of the Royal Society Interface, 2012, 9, 1713-1724.	3.4	27
130	Label-Free Segmentation of Co-cultured Cells on a Nanotopographical Gradient. Nano Letters, 2013, 13, 570-576.	9.1	27
131	Nanoscale stimulation of osteoblastogenesis from mesenchymal stem cells: nanotopography and nanokicking. Nanomedicine, 2015, 10, 547-560.	3.3	27
132	The early life microbiota protects neonatal mice from pathological small intestinal epithelial cell shedding. FASEB Journal, 2020, 34, 7075-7088.	0.5	27
133	Novel Anodization Technique Using a Block Copolymer Template for Nanopatterning of Titanium Implant Surfaces. ACS Applied Materials & Interfaces, 2012, 4, 6354-6361.	8.0	26
134	A nanostructured bacterial bioscaffold for the sustained bottom-up delivery of protein drugs. Nanomedicine, 2013, 8, 1587-1599.	3.3	26
135	Use of nanoscale mechanical stimulation for control and manipulation of cell behaviour. Acta Biomaterialia, 2016, 34, 159-168.	8.3	26
136	In vitro adhesion and biocompatability of osteoblast-like cells to poly(methylmethacrylate) and poly(ethylmethacrylate) bone cements. Journal of Materials Science: Materials in Medicine, 2002, 13, 311-314.	3.6	25
137	Nanotopology potentiates growth hormone signalling and osteogenesis of mesenchymal stem cells. Growth Hormone and IGF Research, 2014, 24, 245-250.	1.1	25
138	Topographically targeted osteogenesis of mesenchymal stem cells stimulated by inclusion bodies attached to polycaprolactone surfaces. Nanomedicine, 2014, 9, 207-220.	3.3	25
139	Three-dimensional CaP/gelatin lattice scaffolds with integrated osteoinductive surface topographies for bone tissue engineering. Biofabrication, 2015, 7, 015005.	7.1	25
140	Materialâ€Driven Fibronectin Assembly Promotes Maintenance of Mesenchymal Stem Cell Phenotypes. Advanced Functional Materials, 2016, 26, 6563-6573.	14.9	23
141	Cell migration on material-driven fibronectin microenvironments. Biomaterials Science, 2017, 5, 1326-1333.	5.4	23
142	Improving cartilage phenotype from differentiated pericytes in tunable peptide hydrogels. Scientific Reports, 2017, 7, 6895.	3.3	23
143	Control of cell behaviour through nanovibrational stimulation: nanokicking. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2018, 376, 20170290.	3.4	23
144	The Î² integrins and cytoskeletal nanoimprinting. Experimental Cell Research, 2008, 314, 927-935.	2.6	22

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145	Current approaches for modulation of the nanoscale interface in the regulation of cell behavior. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 2455-2464.	3.3	22
146	The use of nanovibration to discover specific and potent bioactive metabolites that stimulate osteogenic differentiation in mesenchymal stem cells. Science Advances, 2021, 7, .	10.3	22
147	Phosphatase responsive peptide surfaces. Journal of Materials Chemistry, 2012, 22, 12229.	6.7	21
148	Comparison of human olfactory and skeletal MSCs using osteogenic nanotopography to demonstrate bone-specific bioactivity of the surfaces. Acta Biomaterialia, 2015, 13, 266-276.	8.3	21
149	A Hydrogel Platform that Incorporates Laminin Isoforms for Efficient Presentation of Growth Factors â€" Neural Growth and Osteogenesis. Advanced Functional Materials, 2021, 31, 2010225.	14.9	21
150	Materials-driven fibronectin assembly on nanoscale topography enhances mesenchymal stem cell adhesion, protecting cells from bacterial virulence factors and preventing biofilm formation. Biomaterials, 2022, 280, 121263.	11.4	21
151	Differential in-gel electrophoresis (DIGE) analysis of human bone marrow osteoprogenitor cell contact guidance. Acta Biomaterialia, 2009, 5, 1137-1146.	8.3	20
152	Osteoclastogenesis/osteoblastogenesis using human bone marrow-derived cocultures on nanotopographical polymer surfaces. Nanomedicine, 2015, 10, 949-957.	3.3	20
153	Nanopit-induced osteoprogenitor cell differentiation: The effect of nanopit depth. Journal of Tissue Engineering, 2016, 7, 204173141665277.	5.5	20
154	Effects of a surface topography composite with puerariae radix on human STRO-1-positive stem cells. Acta Biomaterialia, 2010, 6, 3694-3703.	8.3	19
155	Living biointerfaces based on non-pathogenic bacteria support stem cell differentiation. Scientific Reports, 2016, 6, 21809.	3.3	19
156	The effect of varying percentage hydroxyapatite in poly(ethylmethacrylate) bone cement on human osteoblast-like cells. Journal of Materials Science: Materials in Medicine, 2003, 14, 277-282.	3.6	17
157	Optimizing the osteogenicity of nanotopography using block coâ€polymer phase separation fabrication techniques. Journal of Orthopaedic Research, 2012, 30, 1190-1197.	2.3	17
158	Biomimetic oyster shellâ€"replicated topography alters the behaviour of human skeletal stem cells. Journal of Tissue Engineering, 2018, 9, 204173141879400.	5.5	17
159	Nanoparticle-antagomiR based targeting of miR-31 to induce osterix and osteocalcin expression in mesenchymal stem cells. PLoS ONE, 2018, 13, e0192562.	2.5	17
160	Design, construction and characterisation of a novel nanovibrational bioreactor and cultureware for osteogenesis. Scientific Reports, 2019, 9, 12944.	3.3	17
161	Plasma polymerised nanoscale coatings of controlled thickness for efficient solid-phase presentation of growth factors. Materials Science and Engineering C, 2020, 113, 110966.	7.3	17
162	Cell Interactions at the Nanoscale: Piezoelectric Stimulation. IEEE Transactions on Nanobioscience, 2013, 12, 247-254.	3.3	16

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163	Current insights into the bone marrow niche: From biology in vivo to bioengineering ex vivo. Biomaterials, 2022, 286, 121568.	11.4	16
164	Grooved surface topography alters matrix-metalloproteinase production by human fibroblasts. Biomedical Materials (Bristol), 2011, 6, 035005.	3.3	15
165	2D-DIGE Proteomic Analysis of Mesenchymal Stem Cell Cultured on the Elasticity-tunable Hydrogels. Cell Structure and Function, 2012, 37, 127-139.	1.1	15
166	Assessment of cellular viability on calcium sulphate/hydroxyapatite injectable scaffolds. Journal of Tissue Engineering, 2013, 4, 204173141350964.	5.5	15
167	Influence of biomaterial nanotopography on the adhesive and elastic properties of Staphylococcus aureus cells. RSC Advances, 2016, 6, 89347-89355.	3.6	15
168	Functionalization of PLLA with Polymer Brushes to Trigger the Assembly of Fibronectin into Nanonetworks. Advanced Healthcare Materials, 2019, 8, e1801469.	7.6	15
169	<i>In Vitro</i> Biocompatibility and Mechanical Performance of Titanium Doped High Calcium Oxide Metaphosphate-Based Glasses. Journal of Tissue Engineering, 2010, 1, 390127.	5.5	14
170	Biocompatible, Smooth, Plasma-Treated Nickelâ€"Titanium Surface â€" An Adequate Platform for Cell Growth. Journal of Biomaterials Applications, 2012, 26, 707-731.	2.4	14
171	Cellâ€"Material Interactions. , 2014, , 217-251.		14
172	Special focus on nanoscale regeneration. Nanomedicine, 2015, 10, 677-680.	3.3	14
173	Customizable, engineered substrates for rapid screening of cellular cues. Biofabrication, 2020, 12, 025009.	7.1	14
174	Optimizing substrate disorder for bone tissue engineering of mesenchymal stem cells. Journal of Vacuum Science & Technology B, 2008, 26, 2554-2557.	1.3	13
175	Tailoring Cell Behavior on Polymers by the Incorporation of Titanium Doped Phosphate Glass Filler. Advanced Engineering Materials, 2010, 12, B298.	3.5	13
176	Scanning electron microscopical observation of an osteoblast/osteoclast co-culture on micropatterned orthopaedic ceramics. Journal of Tissue Engineering, 2014, 5, 204173141455211.	5.5	13
177	Biogelx: Cell Culture on Self-Assembling Peptide Gels. Methods in Molecular Biology, 2018, 1777, 283-303.	0.9	13
178	Nano Patterned Surfaces for Biomaterial Applications. Advances in Science and Technology, 2006, 53, 107-115.	0.2	12
179	Preventing and troubleshooting artefacts in saturation labelled fluorescence 2â€D difference gel electrophoresis (saturation DiGE). Proteomics, 2011, 11, 4610-4621.	2.2	12
180	Production of Nanoscale Vibration for Stimulation of Human Mesenchymal Stem Cells. Journal of Biomedical Nanotechnology, 2016, 12, 1478-1488.	1.1	11

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