Clemens van Blitterswijk

List of Publications by Year
in descending order

501 papers	39,965 citations	1530 106 h-index	4323 173 g-index
510 all docs	510 docs citations	510 times ranked	31646 citing authors

#	Article	IF	Citations
1	Engineering vascularized skeletal muscle tissue. Nature Biotechnology, 2005, 23, 879-884.	9.4	1,153
2	Vascularization in tissue engineering. Trends in Biotechnology, 2008, 26, 434-441.	4.9	1,032
3	Spheroid culture as a tool for creating 3D complex tissues. Trends in Biotechnology, 2013, 31, 108-115.	4.9	811
4	Osteoinductive ceramics as a synthetic alternative to autologous bone grafting. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13614-13619.	3.3	618
5	Cationic polymers and their therapeutic potential. Chemical Society Reviews, 2012, 41, 7147.	18.7	588
6	Design of porous scaffolds for cartilage tissue engineering using a three-dimensional fiber-deposition technique. Biomaterials, 2004, 25, 4149-4161.	5.7	580
7	3D microenvironment as essential element for osteoinduction by biomaterials. Biomaterials, 2005, 26, 3565-3575.	5.7	542
8	Enzyme-catalyzed crosslinkable hydrogels: Emerging strategies for tissue engineering. Biomaterials, 2012, 33, 1281-1290.	5.7	488
9	3D fiber-deposited scaffolds for tissue engineering: Influence of pores geometry and architecture on dynamic mechanical properties. Biomaterials, 2006, 27, 974-985.	5.7	452
10	Biomimetic Hydroxyapatite Coating on Metal Implants. Journal of the American Ceramic Society, 2002, 85, 517-522.	1.9	447
11	Injectable chitosan-based hydrogels for cartilage tissue engineering. Biomaterials, 2009, 30, 2544-2551.	5.7	426
12	Osteoinductive biomaterials: current knowledge of properties, experimental models and biological mechanisms. , 2011, 21, 407-429.		415
13	Blastocyst-like structures generated solely from stem cells. Nature, 2018, 557, 106-111.	13.7	366
14	A calcium-induced signaling cascade leading to osteogenic differentiation of human bone marrow-derived mesenchymal stromal cells. Biomaterials, 2012, 33, 3205-3215.	5.7	363
15	An algorithm-based topographical biomaterials library to instruct cell fate. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16565-16570.	3.3	355
16	Bone ingrowth in porous titanium implants produced by 3D fiber deposition. Biomaterials, 2007, 28, 2810-2820.	5.7	349
17	Effects of the architecture of tissue engineering scaffolds on cell seeding and culturing. Acta Biomaterialia, 2010, 6, 4208-4217.	4.1	339
18	Osteoconduction and osteoinduction of low-temperature 3D printed bioceramic implants. Biomaterials, 2008, 29, 944-953.	5.7	311

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19	Endothelial Cells Assemble into a 3-Dimensional Prevascular Network in a Bone Tissue Engineering Construct. Tissue Engineering, 2006, 12, 2685-2693.	4.9	302
20	Oxygen gradients in tissue-engineered Pegt/Pbt cartilaginous constructs: Measurement and modeling. Biotechnology and Bioengineering, 2004, 86, 9-18.	1.7	290
21	Synthesis and characterization of hyaluronic acidâ€"poly(ethylene glycol) hydrogels via Michael addition: An injectable biomaterial for cartilage repair. Acta Biomaterialia, 2010, 6, 1968-1977.	4.1	276
22	Bone regeneration: molecular and cellular interactions with calcium phosphate ceramics. International Journal of Nanomedicine, 2006, 1, 317-32.	3.3	276
23	Donor variation and loss of multipotency during in vitro expansion of human mesenchymal stem cells for bone tissue engineering. Journal of Orthopaedic Research, 2007, 25, 1029-1041.	1.2	275
24	Enzymatically-crosslinked injectable hydrogels based on biomimetic dextranâ€"hyaluronic acid conjugates for cartilage tissue engineering. Biomaterials, 2010, 31, 3103-3113.	5.7	268
25	Osteoinduction by biomaterialsâ€"Physicochemical and structural influences. Journal of Biomedical Materials Research - Part A, 2006, 77A, 747-762.	2.1	264
26	Effect of fibroblasts on epidermal regeneration. British Journal of Dermatology, 2002, 147, 230-243.	1.4	263
27	Cell-Based Bone Tissue Engineering. PLoS Medicine, 2007, 4, e9.	3.9	263
28	Influence of ionic strength and carbonate on the Ca-P coating formation from SBFÃ—5 solution. Biomaterials, 2002, 23, 1921-1930.	5.7	262
29	Trophic Effects of Mesenchymal Stem Cells Increase Chondrocyte Proliferation and Matrix Formation. Tissue Engineering - Part A, 2011, 17, 1425-1436.	1.6	259
30	Effects of Wnt Signaling on Proliferation and Differentiation of Human Mesenchymal Stem Cells. Tissue Engineering, 2004, 10, 393-401.	4.9	258
31	Therapeutic Applications of Mesenchymal Stromal Cells: Paracrine Effects and Potential Improvements. Tissue Engineering - Part B: Reviews, 2012, 18, 101-115.	2.5	258
32	Polymer Scaffolds Fabricated with Pore-Size Gradients as a Model for Studying the Zonal Organization within Tissue-Engineered Cartilage Constructs. Tissue Engineering, 2005, 11, 1297-1311.	4.9	246
33	The effect of calcium phosphate microstructure on bone-related cells in vitro. Biomaterials, 2008, 29, 3306-3316.	5.7	237
34	Nucleation of biomimetic Caâ€"P coatings on Ti6Al4V from a SBFÃ—5 solution: influence of magnesium. Biomaterials, 2002, 23, 2211-2220.	5.7	236
35	Endochondral bone tissue engineering using embryonic stem cells. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6840-6845.	3.3	231
36	Fiber diameter and texture of electrospun PEOT/PBT scaffolds influence human mesenchymal stem cell proliferation and morphology, and the release of incorporated compounds. Biomaterials, 2006, 27, 4911-4922.	5.7	225

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37	Advanced biomaterials for skeletal tissue regeneration: Instructive and smart functions. Materials Science and Engineering Reports, 2008, 59, 38-71.	14.8	220
38	Biomimetic calcium phosphate coatings on Ti6Al4V: a crystal growth study of octacalcium phosphate and inhibition by Mg2+ and HCO3â˜. Bone, 1999, 25, 107S-111S.	1.4	219
39	Wnt signaling inhibits osteogenic differentiation of human mesenchymal stem cells. Bone, 2004, 34, 818-826.	1.4	219
40	The effect of PEGT/PBT scaffold architecture on the composition of tissue engineered cartilage. Biomaterials, 2005, 26, 63-72.	5.7	218
41	Osteogenecity of octacalcium phosphate coatings applied on porous metal implants. Journal of Biomedical Materials Research - Part A, 2003, 66A, 779-788.	2.1	210
42	Biological performance of uncoated and octacalcium phosphate-coated Ti6Al4V. Biomaterials, 2005, 26, 23-36.	5.7	205
43	Chitosan/Poly(É›-caprolactone) blend scaffolds for cartilage repair. Biomaterials, 2011, 32, 1068-1079.	5.7	204
44	Porous Ti6Al4V scaffold directly fabricating by rapid prototyping: Preparation and in vitro experiment. Biomaterials, 2006, 27, 1223-1235.	5.7	202
45	Bone induction by porous glass ceramic made from Bioglassï¿½ (45S5). Journal of Biomedical Materials Research Part B, 2001, 58, 270-276.	3.0	201
46	A comparison of the osteoinductive potential of two calcium phosphate ceramics implanted intramuscularly in goats. Journal of Materials Science: Materials in Medicine, 2002, 13, 1271-1275.	1.7	196
47	Comparative in vivo study of six hydroxyapatiteâ€based bone graft substitutes. Journal of Orthopaedic Research, 2008, 26, 1363-1370.	1.2	196
48	cAMP/PKA pathway activation in human mesenchymal stem cells <i>in vitro</i> results in robust bone formation <i>in vivo</i>. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7281-7286.	3.3	196
49	Macropore tissue ingrowth: a quantitative and qualitative study on hydroxyapatite ceramic. Biomaterials, 1986, 7, 137-143.	5.7	195
50	Bone Tissue-Engineered Implants Using Human Bone Marrow Stromal Cells: Effect of Culture Conditions and Donor Age. Tissue Engineering, 2002, 8, 911-920.	4.9	194
51	Viable Osteogenic Cells Are Obligatory for Tissue-Engineered Ectopic Bone Formation in Goats. Tissue Engineering, 2003, 9, 327-336.	4.9	193
52	Biocompatibility testing of novel starch-based materials with potential application in orthopaedic surgery: a preliminary study. Biomaterials, 2001, 22, 2057-2064.	5.7	192
53	Biomimetic coprecipitation of calcium phosphate and bovine serum albumin on titanium alloy. Journal of Biomedical Materials Research Part B, 2001, 57, 327-335.	3.0	192
54	Cell based bone tissue engineering in jaw defects. Biomaterials, 2008, 29, 3053-3061.	5.7	191

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55	Surface modification of nano-apatite by grafting organic polymer. Biomaterials, 1998, 19, 1067-1072.	5.7	187
56	Trophic Effects of Mesenchymal Stem Cells in Chondrocyte Co-Cultures are Independent of Culture Conditions and Cell Sources. Tissue Engineering - Part A, 2012, 18, 1542-1551.	1.6	186
57	Integrating novel technologies to fabricate smart scaffolds. Journal of Biomaterials Science, Polymer Edition, 2008, 19, 543-572.	1.9	185
58	In vitroandin vivodegradation of biomimetic octacalcium phosphate and carbonate apatite coatings on titanium implants. Journal of Biomedical Materials Research - Part A, 2003, 64A, 378-387.	2.1	182
59	Evaluation of Photocrosslinked Lutrol Hydrogel for Tissue Printing Applications. Biomacromolecules, 2009, 10, 1689-1696.	2.6	182
60	3D Fiberâ€Deposited Electrospun Integrated Scaffolds Enhance Cartilage Tissue Formation. Advanced Functional Materials, 2008, 18, 53-60.	7.8	180
61	Evaluation of hydroxylapatite/poly(l-lactide) composites: Mechanical behavior. Journal of Biomedical Materials Research Part B, 1992, 26, 1277-1296.	3.0	177
62	Cytocompatibility and response of osteoblastic-like cells to starch-based polymers: effect of several additives and processing conditions. Biomaterials, 2001, 22, 1911-1917.	5.7	175
63	The effect of PEGT/PBT scaffold architecture on oxygen gradients in tissue engineered cartilaginous constructs. Biomaterials, 2004, 25, 5773-5780.	5.7	174
64	Bioreactions at the tissue/ hydroxyapatite interface. Biomaterials, 1985, 6, 243-251.	5.7	171
65	Endothelial Differentiation of Mesenchymal Stromal Cells. PLoS ONE, 2012, 7, e46842.	1.1	171
66	Nano-scale study of the nucleation and growth of calcium phosphate coating on titanium implants. Biomaterials, 2004, 25, 2901-2910.	5.7	165
67	A perfusion bioreactor system capable of producing clinically relevant volumes of tissue-engineered bone: In vivo bone formation showing proof of concept. Biomaterials, 2006, 27, 315-323.	5.7	165
68	Design and fabrication of standardized hydroxyapatite scaffolds with a defined macro-architecture by rapid prototyping for bone-tissue-engineering research. Journal of Biomedical Materials Research Part B, 2004, 68A, 123-132.	3.0	161
69	A Rapid and Efficient Method for Expansion of Human Mesenchymal Stem Cells. Tissue Engineering, 2007, 13, 3-9.	4.9	158
70	Zero-order release of lysozyme from poly(ethylene glycol)/poly(butylene terephthalate) matrices. Journal of Controlled Release, 2000, 64, 179-192.	4.8	157
71	Tissue Engineering of Ligaments: A Comparison of Bone Marrow Stromal Cells, Anterior Cruciate Ligament, and Skin Fibroblasts as Cell Source. Tissue Engineering, 2004, 10, 893-903.	4.9	153
72	Cross-species Comparison of Ectopic Bone Formation in Biphasic Calcium Phosphate (BCP) and Hydroxyapatite (HA) Scaffolds. Tissue Engineering, 2006, 12, 1607-1615.	4.9	153

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73	Relevance of Osteoinductive Biomaterials in Critical-Sized Orthotopic Defect. Journal of Orthopaedic Research, 2006, 24, 867-876.	1.2	152
74	Effects of scaffold composition and architecture on human nasal chondrocyte redifferentiation and cartilaginous matrix deposition. Biomaterials, 2005, 26, 2479-2489.	5.7	151
75	The effects of inorganic additives to calcium phosphate on in vitro behavior of osteoblasts and osteoclasts. Biomaterials, 2010, 31, 2976-2989.	5.7	150
76	Biomimetic coatings on titanium: a crystal growth study of octacalcium phosphate. Journal of Materials Science: Materials in Medicine, 2001, 12, 529-534.	1.7	149
77	Influence of octacalcium phosphate coating on osteoinductive properties of biomaterials. Journal of Materials Science: Materials in Medicine, 2004, 15, 373-380.	1.7	149
78	Supply of Nutrients to Cells in Engineered Tissues. Biotechnology and Genetic Engineering Reviews, 2009, 26, 163-178.	2.4	149
79	Chitosan Scaffolds Containing Hyaluronic Acid for Cartilage Tissue Engineering. Tissue Engineering - Part C: Methods, 2011, 17, 717-730.	1.1	149
80	Structural arrangements at the interface between plasma sprayed calcium phosphates and bone. Biomaterials, 1994, 15, 543-550.	5.7	148
81	Osteoclastic resorption of biomimetic calcium phosphate coatingsin vitro. Journal of Biomedical Materials Research Part B, 2001, 56, 208-215.	3.0	148
82	Gene expression profiling of dedifferentiated human articular chondrocytes inÂmonolayer culture. Osteoarthritis and Cartilage, 2013, 21, 599-603.	0.6	147
83	Gradients in pore size enhance the osteogenic differentiation of human mesenchymal stromal cells in three-dimensional scaffolds. Scientific Reports, 2016, 6, 22898.	1.6	147
84	Engineering vascularised tissues in vitro. , 2008, 15, 27-40.		147
85	Hydrogels that listen to cells: a review of cell-responsive strategies in biomaterial design for tissue regeneration. Materials Horizons, 2017, 4, 1020-1040.	6.4	144
86	Initial bone matrix formation at the hydroxyapatite interfacein vivo. Journal of Biomedical Materials Research Part B, 1995, 29, 89-99.	3.0	136
87	Fabrication of three-dimensional bioplotted hydrogel scaffolds for islets of Langerhans transplantation. Biofabrication, 2015, 7, 025009.	3.7	136
88	Tissue deformation spatially modulates VEGF signaling and angiogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6886-6891.	3.3	134
89	Materiomics: An â€‹<i>omics</i> Approach to Biomaterials Research. Advanced Materials, 2013, 25, 802-824.	11.1	134
90	Expansion of Bovine Chondrocytes on Microcarriers Enhances Redifferentiation. Tissue Engineering, 2003, 9, 939-948.	4.9	133

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91	The size of surface microstructures as an osteogenic factor in calcium phosphate ceramics. Acta Biomaterialia, 2014, 10, 3254-3263.	4.1	133
92	A novel porous Ti6Al4V: Characterization and cell attachment. Journal of Biomedical Materials Research - Part A, 2005, 73A, 223-233.	2.1	131
93	Chondrogenesis in injectable enzymatically crosslinked heparin/dextran hydrogels. Journal of Controlled Release, 2011, 152, 186-195.	4.8	127
94	A comparison of bone formation in biphasic calcium phosphate (BCP) and hydroxyapatite (HA) implanted in muscle and bone of dogs at different time periods. Journal of Biomedical Materials Research - Part A, 2006, 78A, 139-147.	2.1	126
95	Co-culture in cartilage tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2007, 1, 170-178.	1.3	126
96	Expansion of human nasal chondrocytes on macroporous microcarriers enhances redifferentiation. Biomaterials, 2003, 24, 5153-5161.	5.7	125
97	Bone tissue engineering in a critical size defect compared to ectopic implantations in the goat. Journal of Orthopaedic Research, 2004, 22, 544-551.	1.2	123
98	Hydroxylapatite/poly(L-lactide) composites: An animal study on push-out strengths and interface histology. Journal of Biomedical Materials Research Part B, 1993, 27, 433-444.	3.0	122
99	Tissue assembly and organization: Developmental mechanisms in microfabricated tissues. Biomaterials, 2009, 30, 4851-4858.	5.7	122
100	Enzymatically Crosslinked Dextran-Tyramine Hydrogels as Injectable Scaffolds for Cartilage Tissue Engineering. Tissue Engineering - Part A, 2010, 16, 2429-2440.	1.6	122
101	Towards 4D printed scaffolds for tissue engineering: exploiting 3D shape memory polymers to deliver time-controlled stimulus on cultured cells. Biofabrication, 2017, 9, 031001.	3.7	121
102	The biocompatibility of hydroxyapatite ceramic: A study of retrieved human middle ear implants. Journal of Biomedical Materials Research Part B, 1990, 24, 433-453.	3.0	120
103	The ultrastructure of the bone-hydroxyapatite interfacein vitro. Journal of Biomedical Materials Research Part B, 1992, 26, 1365-1382.	3.0	119
104	Incorporation of bovine serum albumin in calcium phosphate coating on titanium. , 1999, 46, 245-252.		119
105	Gremlin 1, Frizzledâ€related protein, and Dkkâ€1 are key regulators of human articular cartilage homeostasis. Arthritis and Rheumatism, 2012, 64, 3302-3312.	6.7	119
106	Effects of five different barrier materials on postsurgical adhesion formation in the rat. Human Reproduction, 2000, 15, 1358-1363.	0.4	117
107	Biocompatibility of a biodegradable matrix used as a skin substitute: Anin vivo evaluation. Journal of Biomedical Materials Research Part B, 1994, 28, 545-552.	3.0	116
108	Scaffolds for Tissue Engineering of Cartilage. Critical Reviews in Eukaryotic Gene Expression, 2002, 12, 209-236.	0.4	116

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109	Fabrication, Characterization and Cellular Compatibility of Poly(Hydroxy Alkanoate) Composite Nanofibrous Scaffolds for Nerve Tissue Engineering. PLoS ONE, 2013, 8, e57157.	1.1	113
110	The osteochondral interface as a gradient tissue: From development to the fabrication of gradient scaffolds for regenerative medicine. Birth Defects Research Part C: Embryo Today Reviews, 2015, 105, 34-52.	3.6	110
111	Cartilage Tissue Engineering: Controversy in the Effect of Oxygen. Critical Reviews in Biotechnology, 2003, 23, 175-194.	5.1	109
112	Nano-apatite/polymer composites: mechanical and physicochemical characteristics. Biomaterials, 1997, 18, 1263-1270.	5.7	108
113	Overlooked? Underestimated? Effects of Substrate Curvature on Cell Behavior. Trends in Biotechnology, 2019, 37, 838-854.	4.9	107
114	Nanostructured 3D Constructs Based on Chitosan and Chondroitin Sulphate Multilayers for Cartilage Tissue Engineering. PLoS ONE, 2013, 8, e55451.	1.1	105
115	Metabolic programming of mesenchymal stromal cells by oxygen tension directs chondrogenic cell fate. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13954-13959.	3.3	104
116	Bone tissue engineering on amorphous carbonated apatite and crystalline octacalcium phosphate-coated titanium discs. Biomaterials, 2005, 26, 5231-5239.	5.7	103
117	The Use of Endothelial Progenitor Cells for Prevascularized Bone Tissue Engineering. Tissue Engineering - Part A, 2009, 15, 2015-2027.	1.6	103
118	Wettability Influences Cell Behavior on Superhydrophobic Surfaces with Different Topographies. Biointerphases, 2012, 7, 46.	0.6	103
119	The homing of bone marrow MSCs to non-osseous sites for ectopic bone formation induced by osteoinductive calcium phosphate. Biomaterials, 2013, 34, 2167-2176.	5.7	102
120	Raman Imaging of PLGA Microsphere Degradation Inside Macrophages. Journal of the American Chemical Society, 2004, 126, 13226-13227.	6.6	99
121	Calcium Phosphate Coated Electrospun Fiber Matrices as Scaffolds for Bone Tissue Engineering. Langmuir, 2010, 26, 7380-7387.	1.6	99
122	Thermoforming of Filmâ€Based Biomedical Microdevices. Advanced Materials, 2011, 23, 1311-1329.	11.1	98
123	Layer-by-Layer Tissue Microfabrication Supports Cell Proliferation<i>In Vitro</i>and<i>In Vivo</i>. Tissue Engineering - Part C: Methods, 2012, 18, 62-70.	1.1	98
124	Composite biomaterials with chemical bonding between hydroxyapatite filler particles and PEG/PBT copolymer matrix. , 1998, 40, 490-497.		97
125	Development and analysis of multi-layer scaffolds for tissue engineering. Biomaterials, 2009, 30, 6228-6239.	5.7	97
126	Direct Writing Electrospinning of Scaffolds with Multidimensional Fiber Architecture for Hierarchical Tissue Engineering. ACS Applied Materials & Interfaces, 2017, 9, 38187-38200.	4.0	97

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127	Regeneration-on-a-chip? The perspectives on use of microfluidics in regenerative medicine. Lab on A Chip, 2013, 13, 3512.	3.1	96
128	Tailoring surface nanoroughness of electrospun scaffolds for skeletal tissue engineering. Acta Biomaterialia, 2017, 59, 82-93.	4.1	93
129	A controlled release system for proteins based on poly(ether ester) block-copolymers: polymer network characterization. Journal of Controlled Release, 1999, 62, 393-405.	4.8	92
130	Clinical Application of Human Mesenchymal Stromal Cells for Bone Tissue Engineering. Stem Cells International, 2010, 2010, 1-12.	1.2	92
131	In vitro and in vivo bioactivity assessment of a polylactic acid/hydroxyapatite composite for bone regeneration. Biomatter, 2014, 4, e27664.	2.6	89
132	Microspheres for protein delivery prepared from amphiphilic multiblock copolymers. Journal of Controlled Release, 2000, 67, 249-260.	4.8	88
133	Molecular mechanisms of biomaterial-driven osteogenic differentiation in human mesenchymal stromal cells. Integrative Biology (United Kingdom), 2013, 5, 920-931.	0.6	88
134	Influencing chondrogenic differentiation of human mesenchymal stromal cells in scaffolds displaying a structural gradient in pore size. Acta Biomaterialia, 2016, 36, 210-219.	4.1	88
135	Surface modification of hydroxyapatite to introduce interfacial bonding with polyactiveTM 70/30 in a biodegradable composite. Journal of Materials Science: Materials in Medicine, 1996, 7, 551-557.	1.7	87
136	Three-dimensional fiber-deposited PEOT/PBT copolymer scaffolds for tissue engineering: Influence of porosity, molecular network mesh size, and swelling in aqueous media on dynamic mechanical properties. Journal of Biomedical Materials Research - Part A, 2005, 75A, 957-965.	2.1	87
137	Oxygen and nutrient delivery in tissue engineering: Approaches to graft vascularization. Journal of Tissue Engineering and Regenerative Medicine, 2019, 13, 1815-1829.	1.3	87
138	High-throughput screening approaches and combinatorial development of biomaterials using microfluidics. Acta Biomaterialia, 2016, 34, 1-20.	4.1	84
139	Critical Size Defect in the Goat's Os Ilium. Clinical Orthopaedics and Related Research, 1999, 364, 231-239.	0.7	83
140	The use of PEGT/PBT as a dermal scaffold for skin tissue engineering. Biomaterials, 2004, 25, 2987-2996.	5.7	83
141	Cell-seeding and in vitro biocompatibility evaluation of polymeric matrices of PEO/PBT copolymers and PLLA. Biomaterials, 1993, 14, 598-604.	5.7	82
142	Bone Induction by Implants Coated with Cultured Osteogenic Bone Marrow Cells. Advances in Dental Research, 1999, 13, 74-81.	3.6	82
143	Relation between in vitro and in vivo osteogenic potential of cultured human bone marrow stromal cells. Journal of Materials Science: Materials in Medicine, 2004, 15, 1123-1128.	1.7	82
144	Effect of implantation site on phagocyte/polymer interaction and fibrous capsule formation. Biomaterials, 1988, 9, 14-23.	5.7	81

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145	Low oxygen tension stimulates the redifferentiation of dedifferentiated adult human nasal chondrocytes11Supported by IsoTis S.A.. Osteoarthritis and Cartilage, 2004, 12, 306-313.	0.6	80
146	Covalent bonding of PMMA, PBMA, and poly(HEMA) to hydroxyapatite particles. , 1998, 40, 257-263.		79
147	Synthetic scaffold morphology controls human dermal connective tissue formation. Journal of Biomedical Materials Research - Part A, 2005, 74A, 523-532.	2.1	79
148	Analysis of ectopic and orthotopic bone formation in cell-based tissue-engineered constructs in goats. Biomaterials, 2007, 28, 1798-1805.	5.7	79
149	A Wnt/Î²â€catenin negative feedback loop inhibits interleukinâ€1â€"induced matrix metalloproteinase expression in human articular chondrocytes. Arthritis and Rheumatism, 2012, 64, 2589-2600.	6.7	79
150	Self-attaching and cell-attracting in-situ forming dextran-tyramine conjugates hydrogels for arthroscopic cartilage repair. Biomaterials, 2012, 33, 3164-3174.	5.7	79
151	A study on the grafting reaction of isocyanates with hydroxyapatite particles. , 1998, 40, 358-364.		78
152	The regulation of expanded human nasal chondrocyte re-differentiation capacity by substrate composition and gas plasma surface modification. Biomaterials, 2006, 27, 1043-1053.	5.7	78
153	Ultraviolet light crosslinking of poly(trimethylene carbonate) for elastomeric tissue engineering scaffolds. Biomaterials, 2010, 31, 8696-8705.	5.7	78
154	Engineered Microâ€Objects as Scaffolding Elements in Cellular Building Blocks for Bottomâ€Up Tissue Engineering Approaches. Advanced Materials, 2014, 26, 2592-2599.	11.1	78
155	Polymer hollow fiber three-dimensional matrices with controllable cavity and shell thickness. Biomaterials, 2006, 27, 5918-5926.	5.7	77
156	A link between the accumulation of DNA damage and loss of multiâ€potency of human mesenchymal stromal cells. Journal of Cellular and Molecular Medicine, 2010, 14, 2729-2738.	1.6	77
157	The effect of platelet lysate supplementation of a dextran-based hydrogel on cartilage formation. Biomaterials, 2012, 33, 3651-3661.	5.7	76
158	Inhibition of Histone Acetylation as a Tool in Bone Tissue Engineering. Tissue Engineering, 2006, 12, 2927-2937.	4.9	75
159	GREM1, FRZB and DKK1 mRNA levels correlate with osteoarthritis and are regulated by osteoarthritis-associated factors. Arthritis Research and Therapy, 2013, 15, R126.	1.6	74
160	Towards an in vitro model mimicking the foreign body response: tailoring the surface properties of biomaterials to modulate extracellular matrix. Scientific Reports, 2014, 4, 6325.	1.6	74
161	Osteoclastic resorption of calcium phosphates is potentiated in postosteogenic culture conditions. Journal of Biomedical Materials Research Part B, 1994, 28, 105-112.	3.0	73
162	Degradative behaviour of polymeric matrices in (sub)dermal and muscle tissue of the rat: a quantitative study. Biomaterials, 1994, 15, 551-559.	5.7	70

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163	Microspheres for protein delivery prepared from amphiphilic multiblock copolymers. Journal of Controlled Release, 2000, 67, 233-248.	4.8	70
164	Dual release of proteins from porous polymeric scaffolds. Journal of Controlled Release, 2006, 111, 95-106.	4.8	70
165	Flexible fluidic microchips based on thermoformed and locally modified thin polymer films. Lab on A Chip, 2008, 8, 1570.	3.1	69
166	Biocompatibility of a polyether urethane, polypropylene oxide, and a polyether polyester copolymer. A qualitative and quantitative study of three alloplastic tympanic membrane materials in the rat middle ear. Journal of Biomedical Materials Research Part B, 1990, 24, 489-515.	3.0	68
167	Polyacids as bonding agents in hydroxyapatite polyester-ether (Polyactive 30/70) composites. Journal of Materials Science: Materials in Medicine, 1998, 9, 23-30.	1.7	68
168	Viscoelastic Oxidized Alginates with Reversible Imine Type Crosslinks: Self-Healing, Injectable, and Bioprintable Hydrogels. Gels, 2018, 4, 85.	2.1	68
169	Cartilage Tissue Engineering: Controversy in the Effect of Oxygen. Critical Reviews in Biotechnology, 2003, 23, 175-194.	5.1	68
170	The effect of cell-based bone tissue engineering in a goat transverse process model. Biomaterials, 2006, 27, 5099-5106.	5.7	67
171	Rapid prototyping of anatomically shaped, tissueâ€engineered implants for restoring congruent articulating surfaces in small joints. Cell Proliferation, 2009, 42, 485-497.	2.4	67
172	The effect of bone marrow aspiration strategy on the yield and quality of human mesenchymal stem cells. Monthly Notices of the Royal Astronomical Society: Letters, 2009, 80, 618-621.	1.2	66
173	Mining for osteogenic surface topographies: In silico design to inÂvivo osseo-integration. Biomaterials, 2017, 137, 49-60.	5.7	66
174	Application of porous PEO/PBT copolymers for bone replacement. , 1996, 30, 341-351.		65
175	Cell Sources for Articular Cartilage Repair Strategies: Shifting from Monocultures to Cocultures. Tissue Engineering - Part B: Reviews, 2013, 19, 31-40.	2.5	65
176	Poly(N-isopropylacrylamide)â€“poly(ferrocenylsilane) dual-responsive hydrogels: synthesis, characterization and antimicrobial applications. Polymer Chemistry, 2013, 4, 337-342.	1.9	65
177	Scalable topographies to support proliferation and Oct4 expression by human induced pluripotent stem cells. Scientific Reports, 2016, 6, 18948.	1.6	65
178	Ectopic bone formation by aggregated mesenchymal stem cells from bone marrow and adipose tissue: A comparative study. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e150-e158.	1.3	65
179	The Components of Bone and What They Can Teach Us about Regeneration. Materials, 2018, 11, 14.	1.3	65
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