Ali Khademhosseini

List of Publications by Year
in descending order

780 papers	97,598 citations	168 157 h-index	468 278 g-index
875 all docs	875 docs citations	875 times ranked	76964 citing authors

#	Article	IF	Citations
1	Hydrogels in Biology and Medicine: From Molecular Principles to Bionanotechnology. Advanced Materials, 2006, 18, 1345-1360.	11.1	3,481
2	Hydrogels in Regenerative Medicine. Advanced Materials, 2009, 21, 3307-3329.	11.1	2,326
3	Synthesis, properties, and biomedical applications of gelatin methacryloyl (GelMA) hydrogels. Biomaterials, 2015, 73, 254-271.	5.7	1,871
4	Cell-laden microengineered gelatin methacrylate hydrogels. Biomaterials, 2010, 31, 5536-5544.	5.7	1,864
5	Advances in engineering hydrogels. Science, 2017, 356, .	6.0	1,836
6	Microscale technologies for tissue engineering and biology. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2480-2487.	3.3	1,443
7	25th Anniversary Article: Rational Design and Applications of Hydrogels in Regenerative Medicine. Advanced Materials, 2014, 26, 85-124.	11.1	1,103
8	Diverse Applications of Nanomedicine. ACS Nano, 2017, 11, 2313-2381.	7.3	976
9	Controlling the Porosity and Microarchitecture of Hydrogels for Tissue Engineering. Tissue Engineering - Part B: Reviews, 2010, 16, 371-383.	2.5	925
10	Nanocomposite hydrogels for biomedical applications. Biotechnology and Bioengineering, 2014, 111, 441-453.	1.7	916
11	Nanoparticle-Aptamer Bioconjugates. Cancer Research, 2004, 64, 7668-7672.	0.4	873
12	Bioinks for 3D bioprinting: an overview. Biomaterials Science, 2018, 6, 915-946.	2.6	828
13	Carbon-Nanotube-Embedded Hydrogel Sheets for Engineering Cardiac Constructs and Bioactuators. ACS Nano, 2013, 7, 2369-2380.	7.3	789
14	Hydrogel bioprinted microchannel networks for vascularization of tissue engineering constructs. Lab on A Chip, 2014, 14, 2202-2211.	3.1	759
15	Microengineered hydrogels for tissue engineering. Biomaterials, 2007, 28, 5087-5092.	5.7	742
16	Direct 3D bioprinting of perfusable vascular constructs using a blend bioink. Biomaterials, 2016, 106, 58-68.	5.7	727
17	Bioprinting 3D microfibrous scaffolds for engineering endothelialized myocardium and heart-on-a-chip. Biomaterials, 2016, 110, 45-59.	5.7	699
18	Carbon-Based Nanomaterials: Multifunctional Materials for Biomedical Engineering. ACS Nano, 2013, 7, 2891-2897.	7.3	693

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19	Microfluidic Bioprinting of Heterogeneous 3D Tissue Constructs Using Lowâ€Viscosity Bioink. Advanced Materials, 2016, 28, 677-684.	11.1	677
20	Functional Human Vascular Network Generated in Photocrosslinkable Gelatin Methacrylate Hydrogels. Advanced Functional Materials, 2012, 22, 2027-2039.	7.8	618
21	Electrospun scaffolds for tissue engineering of vascular grafts. Acta Biomaterialia, 2014, 10, 11-25.	4.1	611
22	Biocompatibility of engineered nanoparticles for drug delivery. Journal of Controlled Release, 2013, 166, 182-194.	4.8	597
23	Photocrosslinkable Gelatin Hydrogel for Epidermal Tissue Engineering. Advanced Healthcare Materials, 2016, 5, 108-118.	3.9	595
24	Functionalization, preparation and use of cell-laden gelatin methacryloylâ€“based hydrogels as modular tissue culture platforms. Nature Protocols, 2016, 11, 727-746.	5.5	581
25	A decade of progress in tissue engineering. Nature Protocols, 2016, 11, 1775-1781.	5.5	570
26	Multisensor-integrated organs-on-chips platform for automated and continual in situ monitoring of organoid behaviors. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E2293-E2302.	3.3	570
27	Engineering microscale topographies to control the cellâ€“substrate interface. Biomaterials, 2012, 33, 5230-5246.	5.7	568
28	Microfabrication of complex porous tissue engineering scaffolds using 3D projection stereolithography. Biomaterials, 2012, 33, 3824-3834.	5.7	560
29	Directed assembly of cell-laden microgels for fabrication of 3D tissue constructs. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 9522-9527.	3.3	548
30	Graphene-based materials for tissue engineering. Advanced Drug Delivery Reviews, 2016, 105, 255-274.	6.6	537
31	Nanotechnology in Textiles. ACS Nano, 2016, 10, 3042-3068.	7.3	530
32	Direct-write bioprinting of cell-laden methacrylated gelatin hydrogels. Biofabrication, 2014, 6, 024105.	3.7	528
33	3D Biofabrication Strategies for Tissue Engineering and Regenerative Medicine. Annual Review of Biomedical Engineering, 2014, 16, 247-276.	5.7	522
34	Drug delivery systems and materials for wound healing applications. Advanced Drug Delivery Reviews, 2018, 127, 138-166.	6.6	512
35	Ionic liquids and their solid-state analogues as materials for energy generation and storage. Nature Reviews Materials, 2016, 1, .	23.3	511
36	3D Bioprinting for Tissue and Organ Fabrication. Annals of Biomedical Engineering, 2017, 45, 148-163.	1.3	507

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37	Modular tissue engineering: engineering biological tissues from the bottom up. Soft Matter, 2009, 5, 1312.	1.2	504
38	Vascularization and Angiogenesis in Tissue Engineering: Beyond Creating Static Networks. Trends in Biotechnology, 2016, 34, 733-745.	4.9	490
39	Cell-laden hydrogels for osteochondral and cartilage tissue engineering. Acta Biomaterialia, 2017, 57, 1-25.	4.1	490
40	A liver-on-a-chip platform with bioprinted hepatic spheroids. Biofabrication, 2016, 8, 014101.	3.7	466
41	Directed 3D cell alignment and elongation in microengineered hydrogels. Biomaterials, 2010, 31, 6941-6951.	5.7	463
42	Injectable Graphene Oxide/Hydrogel-Based Angiogenic Gene Delivery System for Vasculogenesis and Cardiac Repair. ACS Nano, 2014, 8, 8050-8062.	7.3	449
43	Bioactive Silicate Nanoplatelets for Osteogenic Differentiation of Human Mesenchymal Stem Cells. Advanced Materials, 2013, 25, 3329-3336.	11.1	448
44	Engineered biomaterials for in situ tissue regeneration. Nature Reviews Materials, 2020, 5, 686-705.	23.3	420
45	Multi-tissue interactions in an integrated three-tissue organ-on-a-chip platform. Scientific Reports, 2017, 7, 8837.	1.6	407
46	Carbon Nanotube Reinforced Hybrid Microgels as Scaffold Materials for Cell Encapsulation. ACS Nano, 2012, 6, 362-372.	7.3	400
47	Digitally tunable physicochemical coding of material composition and topography in continuous microfibres. Nature Materials, 2011, 10, 877-883.	13.3	397
48	Engineering Immunomodulatory Biomaterials To Tune the Inflammatory Response. Trends in Biotechnology, 2016, 34, 470-482.	4.9	387
49	Fiber-based tissue engineering: Progress, challenges, and opportunities. Biotechnology Advances, 2013, 31, 669-687.	6.0	386
50	Reduced Graphene Oxideâ€ GelMA Hybrid Hydrogels as Scaffolds for Cardiac Tissue Engineering. Small, 2016, 12, 3677-3689.	5.2	385
51	Microfluidic fabrication of microengineered hydrogels and their application in tissue engineering. Lab on A Chip, 2012, 12, 45-59.	3.1	375
52	Mesenchymal stem cells in regenerative medicine: Focus on articular cartilage and intervertebral disc regeneration. Methods, 2016, 99, 69-80.	1.9	366
53	Wearables in Medicine. Advanced Materials, 2018, 30, e1706910.	11.1	358
54	Progress in Tissue Engineering. Scientific American, 2009, 300, 64-71.	1.0	355

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55	A cell-laden microfluidic hydrogel. Lab on A Chip, 2007, 7, 756.	3.1	352
56	Extrusion Bioprinting of Shearâ€Thinning Gelatin Methacryloyl Bioinks. Advanced Healthcare Materials, 2017, 6, 1601451.	3.9	352
57	Microfabricated Biomaterials for Engineering 3D Tissues. Advanced Materials, 2012, 24, 1782-1804.	11.1	351
58	Microwell-mediated control of embryoid body size regulates embryonic stem cell fate via differential expression of WNT5a and WNT11. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16978-16983.	3.3	349
59	Controlling size, shape and homogeneity of embryoid bodies using poly(ethylene glycol) microwells. Lab on A Chip, 2007, 7, 786.	3.1	344
60	Modified Gellan Gum hydrogels with tunable physical and mechanical properties. Biomaterials, 2010, 31, 7494-7502.	5.7	342
61	The mechanical properties and cytotoxicity of cell-laden double-network hydrogels based on photocrosslinkable gelatin and gellan gum biomacromolecules. Biomaterials, 2012, 33, 3143-3152.	5.7	342
62	Fabrication of Gradient Hydrogels Using a Microfluidics/Photopolymerization Process. Langmuir, 2004, 20, 5153-5156.	1.6	338
63	Gradient biomaterials for soft-to-hard interface tissue engineering. Acta Biomaterialia, 2011, 7, 1441-1451.	4.1	338
64	Overview of Silk Fibroin Use in Wound Dressings. Trends in Biotechnology, 2018, 36, 907-922.	4.9	330
65	Highly Stretchable, Strain Sensing Hydrogel Optical Fibers. Advanced Materials, 2016, 28, 10244-10249.	11.1	327
66	Micromolding of shape-controlled, harvestable cell-laden hydrogels. Biomaterials, 2006, 27, 5391-5398.	5.7	318
67	Shear-Thinning Nanocomposite Hydrogels for the Treatment of Hemorrhage. ACS Nano, 2014, 8, 9833-9842.	7.3	318
68	Biomimetic tissues on a chip for drug discovery. Drug Discovery Today, 2012, 17, 173-181.	3.2	317
69	Bioprinted Osteogenic and Vasculogenic Patterns for Engineering 3D Bone Tissue. Advanced Healthcare Materials, 2017, 6, 1700015.	3.9	310
70	Micromolding of photocrosslinkable chitosan hydrogel for spheroid microarray and co-cultures. Biomaterials, 2006, 27, 5259-5267.	5.7	309
71	Organ-on-a-chip platforms for studying drug delivery systems. Journal of Controlled Release, 2014, 190, 82-93.	4.8	308
72	Nano/Microfluidics for diagnosis of infectious diseases in developing countries. Advanced Drug Delivery Reviews, 2010, 62, 449-457.	6.6	305

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73	Layer-by-layer deposition of hyaluronic acid and poly-l-lysine for patterned cell co-cultures. Biomaterials, 2004, 25, 3583-3592.	5.7	297
74	The bioprinting roadmap. Biofabrication, 2020, 12, 022002.	3.7	291
75	Microfluidics for drug discovery and development: From target selection to product lifecycle management. Drug Discovery Today, 2008, 13, 1-13.	3.2	290
76	Bioinspired Materials for Controlling Stem Cell Fate. Accounts of Chemical Research, 2010, 43, 419-428.	7.6	284
77	Cell and Protein Compatibility of Parylene-C Surfaces. Langmuir, 2007, 23, 11718-11725.	1.6	279
78	Gold Nanocomposite Bioink for Printing 3D Cardiac Constructs. Advanced Functional Materials, 2017, 27, 1605352.	7.8	278
79	A microwell array system for stem cell culture. Biomaterials, 2008, 29, 752-763.	5.7	277
80	Microfluidicsâ€Enabled Multimaterial Maskless Stereolithographic Bioprinting. Advanced Materials, 2018, 30, e1800242.	11.1	277
81	Rapid Continuous Multimaterial Extrusion Bioprinting. Advanced Materials, 2017, 29, 1604630.	11.1	275
82	PGS:Gelatin nanofibrous scaffolds with tunable mechanical andÂstructural properties for engineering cardiac tissues. Biomaterials, 2013, 34, 6355-6366.	5.7	273
83	A simple soft lithographic route to fabrication of poly(ethylene glycol) microstructures for protein and cell patterning. Biomaterials, 2004, 25, 557-563.	5.7	271
84	4D bioprinting: the next-generation technology for biofabrication enabled by stimuli-responsive materials. Biofabrication, 2017, 9, 012001.	3.7	271
85	Synthesis and Characterization of Hybrid Hyaluronic Acid-Gelatin Hydrogels. Biomacromolecules, 2013, 14, 1085-1092.	2.6	269
86	Stop-flow lithography to generate cell-laden microgel particles. Lab on A Chip, 2008, 8, 1056.	3.1	268
87	Synthesis and Characterization of Tunable Poly(Ethylene Glycol): Gelatin Methacrylate Composite Hydrogels. Tissue Engineering - Part A, 2011, 17, 1713-1723.	1.6	268
88	Layer by Layer Three-dimensional Tissue Epitaxy by Cell-Laden Hydrogel Droplets. Tissue Engineering - Part C: Methods, 2010, 16, 157-166.	1.1	267
89	Cellâ€laden Microengineered and Mechanically Tunable Hybrid Hydrogels of Gelatin and Graphene Oxide. Advanced Materials, 2013, 25, 6385-6391.	11.1	266
90	Engineering a highly elastic human proteinâ€“based sealant for surgical applications. Science Translational Medicine, 2017, 9, .	5.8	261

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91	Vascularized Bone Tissue Engineering: Approaches for Potential Improvement. Tissue Engineering - Part B: Reviews, 2012, 18, 363-382.	2.5	259
92	3D-printed microfluidic devices. Biofabrication, 2016, 8, 022001.	3.7	259
93	Smart Bandage for Monitoring and Treatment of Chronic Wounds. Small, 2018, 14, e1703509.	5.2	257
94	Microfluidic techniques for development of 3D vascularized tissue. Biomaterials, 2014, 35, 7308-7325.	5.7	254
95	Synthesis and characterization of photocrosslinkable gelatin and silk fibroin interpenetrating polymer network hydrogels. Acta Biomaterialia, 2011, 7, 2384-2393.	4.1	251
96	Tough and flexible CNTâ€“polymeric hybrid scaffolds for engineering cardiac constructs. Biomaterials, 2014, 35, 7346-7354.	5.7	249
97	Gelatinâ€polysaccharide composite scaffolds for 3D cell culture and tissue engineering: Towards natural therapeutics. Bioengineering and Translational Medicine, 2019, 4, 96-115.	3.9	249
98	Cell infiltrative hydrogel fibrous scaffolds for accelerated wound healing. Acta Biomaterialia, 2017, 49, 66-77.	4.1	244
99	Controlling the porosity of fibrous scaffolds by modulating the fiber diameter and packing density. Journal of Biomedical Materials Research - Part A, 2011, 96A, 566-574.	2.1	238
100	DNA-directed self-assembly of shape-controlled hydrogels. Nature Communications, 2013, 4, 2275.	5.8	238
101	Dielectrophoretically Aligned Carbon Nanotubes to Control Electrical and Mechanical Properties of Hydrogels to Fabricate Contractile Muscle Myofibers. Advanced Materials, 2013, 25, 4028-4034.	11.1	236
102	Interplay between materials and microfluidics. Nature Reviews Materials, 2017, 2, .	23.3	236
103	The Synergy of Scaffold-Based and Scaffold-Free Tissue Engineering Strategies. Trends in Biotechnology, 2018, 36, 348-357.	4.9	231
104	Sutureless repair of corneal injuries using naturally derived bioadhesive hydrogels. Science Advances, 2019, 5, eaav1281.	4.7	229
105	Highly Elastic and Conductive Humanâ€Based Protein Hybrid Hydrogels. Advanced Materials, 2016, 28, 40-49.	11.1	226
106	Cell docking inside microwells within reversibly sealed microfluidic channels for fabricating multiphenotype cell arrays. Lab on A Chip, 2005, 5, 1380.	3.1	224
107	Controlled-size embryoid body formation in concave microwell arrays. Biomaterials, 2010, 31, 4296-4303.	5.7	223
108	Directed endothelial cell morphogenesis in micropatterned gelatin methacrylate hydrogels. Biomaterials, 2012, 33, 9009-9018.	5.7	221

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109	Micropatterned cell co-cultures using layer-by-layer deposition of extracellular matrix components. Biomaterials, 2006, 27, 1479-1486.	5.7	220
110	Coaxial extrusion bioprinting of 3D microfibrous constructs with cell-favorable gelatin methacryloyl microenvironments. Biofabrication, 2018, 10, 024102.	3.7	219
111	Biomimetic gradient hydrogels for tissue engineering. Canadian Journal of Chemical Engineering, 2010, 88, 899-911.	0.9	218
112	Skeletal Muscle Tissue Engineering: Methods to Form Skeletal Myotubes and Their Applications. Tissue Engineering - Part B: Reviews, 2014, 20, 403-436.	2.5	218
113	In vitro and in vivo analysis of visible light crosslinkable gelatin methacryloyl (GelMA) hydrogels. Biomaterials Science, 2017, 5, 2093-2105.	2.6	218
114	Fabrication of three-dimensional porous cell-laden hydrogel for tissue engineering. Biofabrication, 2010, 2, 035003.	3.7	217
115	Biomechanical properties of native and tissue engineered heart valve constructs. Journal of Biomechanics, 2014, 47, 1949-1963.	0.9	216
116	Hybrid hydrogels containing vertically aligned carbon nanotubes with anisotropic electrical conductivity for muscle myofiber fabrication. Scientific Reports, 2014, 4, 4271.	1.6	213
117	The Future of Layer-by-Layer Assembly: A Tribute to ACS Nano Associate Editor Helmuth MÃ¶hwald. ACS Nano, 2019, 13, 6151-6169.	7.3	211
118	Engineered Contractile Skeletal Muscle Tissue on a Microgrooved Methacrylated Gelatin Substrate. Tissue Engineering - Part A, 2012, 18, 2453-2465.	1.6	206
119	Glucoseâ€Sensitive Hydrogel Optical Fibers Functionalized with Phenylboronic Acid. Advanced Materials, 2017, 29, 1606380.	11.1	206
120	Micromolding of photocrosslinkable hyaluronic acid for cell encapsulation and entrapment. Journal of Biomedical Materials Research - Part A, 2006, 79A, 522-532.	2.1	203
121	Building Vascular Networks. Science Translational Medicine, 2012, 4, 160ps23.	5.8	202
122	Microfluidic Chip-Based Fabrication of PLGA Microfiber Scaffolds for Tissue Engineering. Langmuir, 2008, 24, 6845-6851.	1.6	201
123	Highly Elastic Micropatterned Hydrogel for Engineering Functional Cardiac Tissue. Advanced Functional Materials, 2013, 23, 4950-4959.	7.8	201
124	A Highly Elastic and Rapidly Crosslinkable Elastinâ€Like Polypeptideâ€Based Hydrogel for Biomedical Applications. Advanced Functional Materials, 2015, 25, 4814-4826.	7.8	201
125	A Bioactive Carbon Nanotubeâ€Based Ink for Printing 2D and 3D Flexible Electronics. Advanced Materials, 2016, 28, 3280-3289.	11.1	199
126	Digitally Tunable Microfluidic Bioprinting of Multilayered Cannular Tissues. Advanced Materials, 2018, 30, e1706913.	11.1	199

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127	Co-culture of human embryonic stem cells with murine embryonic fibroblasts on microwell-patterned substrates. Biomaterials, 2006, 27, 5968-5977.	5.7	198
128	Evolution and clinical translation of drug delivery nanomaterials. Nano Today, 2017, 15, 91-106.	6.2	196
129	Bioprinting the Cancer Microenvironment. ACS Biomaterials Science and Engineering, 2016, 2, 1710-1721.	2.6	194
130	Mussel-Inspired Multifunctional Hydrogel Coating for Prevention of Infections and Enhanced Osteogenesis. ACS Applied Materials & Interfaces, 2017, 9, 11428-11439.	4.0	193
131	3D Bioprinting in Skeletal Muscle Tissue Engineering. Small, 2019, 15, e1805530.	5.2	192
132	Multiscale bioprinting of vascularized models. Biomaterials, 2019, 198, 204-216.	5.7	191
133	Molded polyethylene glycol microstructures for capturing cells within microfluidic channels. Lab on A Chip, 2004, 4, 425.	3.1	190
134	Regulating Cellular Behavior on Fewâ€Layer Reduced Graphene Oxide Films with Wellâ€Controlled Reduction States. Advanced Functional Materials, 2012, 22, 751-759.	7.8	189
135	Mesenchymal stem cells: Identification, phenotypic characterization, biological properties and potential for regenerative medicine through biomaterial micro-engineering of their niche. Methods, 2016, 99, 62-68.	1.9	189
136	A highly adhesive and naturally derived sealant. Biomaterials, 2017, 140, 115-127.	5.7	188
137	Enhanced angiogenesis through controlled release of basic fibroblast growth factor from peptide amphiphile for tissue regeneration. Biomaterials, 2006, 27, 5836-5844.	5.7	187
138	A Textile Dressing for Temporal and Dosage Controlled Drug Delivery. Advanced Functional Materials, 2017, 27, 1702399.	7.8	187
139	Controlling Mechanical Properties of Cellâ€Laden Hydrogels by Covalent Incorporation of Graphene Oxide. Small, 2014, 10, 514-523.	5.2	183
140	Bioprinted thrombosis-on-a-chip. Lab on A Chip, 2016, 16, 4097-4105.	3.1	183
141	Fabrication of porous chitosan scaffolds for soft tissue engineering using dense gas CO2. Acta Biomaterialia, 2011, 7, 1653-1664.	4.1	182
142	Microfluidics for advanced drug delivery systems. Current Opinion in Chemical Engineering, 2015, 7, 101-112.	3.8	182
143	Elastic sealants for surgical applications. European Journal of Pharmaceutics and Biopharmaceutics, 2015, 95, 27-39.	2.0	182
144	Aptamer-Based Microfluidic Electrochemical Biosensor for Monitoring Cell-Secreted Trace Cardiac Biomarkers. Analytical Chemistry, 2016, 88, 10019-10027.	3.2	181

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145	Microfluidic patterning for fabrication of contractile cardiac organoids. Biomedical Microdevices, 2007, 9, 149-157.	1.4	179
146	Photocrosslinkable Kappaâ€Carrageenan Hydrogels for Tissue Engineering Applications. Advanced Healthcare Materials, 2013, 2, 895-907.	3.9	178
147	Engineering vascularized and innervated bone biomaterials for improved skeletal tissue regeneration. Materials Today, 2018, 21, 362-376.	8.3	178
148	Biodegradable Gelatin Methacryloyl Microneedles for Transdermal Drug Delivery. Advanced Healthcare Materials, 2019, 8, e1801054.	3.9	177
149	Sequential assembly of cellâ€laden hydrogel constructs to engineer vascularâ€like microchannels. Biotechnology and Bioengineering, 2011, 108, 1693-1703.	1.7	175
150	Organs-on-a-chip: a new tool for drug discovery. Expert Opinion on Drug Discovery, 2014, 9, 335-352.	2.5	175
151	Flexible pHâ€Sensing Hydrogel Fibers for Epidermal Applications. Advanced Healthcare Materials, 2016, 5, 711-719.	3.9	172
152	Transdermal regulation of vascular network bioengineering using aÂphotopolymerizable methacrylated gelatin hydrogel. Biomaterials, 2013, 34, 6785-6796.	5.7	170
153	Integrinâ€Mediated Interactions Control Macrophage Polarization in 3D Hydrogels. Advanced Healthcare Materials, 2017, 6, 1700289.	3.9	169
154	Advances and Future Perspectives in 4D Bioprinting. Biotechnology Journal, 2018, 13, e1800148.	1.8	168
155	Mechanically Robust and Bioadhesive Collagen and Photocrosslinkable Hyaluronic Acid Semi-Interpenetrating Networks. Tissue Engineering - Part A, 2009, 15, 1645-1653.	1.6	167
156	Delivery strategies to control inflammatory response: Modulating M1â€“M2 polarization in tissue engineering applications. Journal of Controlled Release, 2016, 240, 349-363.	4.8	164
157	Advancing Frontiers in Bone Bioprinting. Advanced Healthcare Materials, 2019, 8, e1801048.	3.9	164
158	Cultivation of Human Embryonic Stem Cells Without the Embryoid Body Step Enhances Osteogenesis In Vitro. Stem Cells, 2006, 24, 835-843.	1.4	163
159	Integrating microfluidics and lensless imaging for point-of-care testing. Biosensors and Bioelectronics, 2009, 24, 3208-3214.	5.3	162
160	A toolkit of thread-based microfluidics, sensors, and electronics for 3D tissue embedding for medical diagnostics. Microsystems and Nanoengineering, 2016, 2, 16039.	3.4	162
161	Textile Technologies and Tissue Engineering: A Path Toward Organ Weaving. Advanced Healthcare Materials, 2016, 5, 751-766.	3.9	161
162	Quantitative analysis of cell adhesion on aligned microâ€and nanofibers. Journal of Biomedical Materials Research - Part A, 2008, 84A, 291-299.	2.1	160

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163	Microfluidic System for Studying the Interaction of Nanoparticles and Microparticles with Cells. Analytical Chemistry, 2005, 77, 5453-5459.	3.2	159
164	In-Depth Interfacial Chemistry and Reactivity Focused Investigation of Lithiumâ€“Imide- and Lithiumâ€“Imidazole-Based Electrolytes. ACS Applied Materials & Interfaces, 2016, 8, 16087-16100.	4.0	159
165	Surgical materials: Current challenges and nano-enabled solutions. Nano Today, 2014, 9, 574-589.	6.2	158
166	Roomâ€Temperatureâ€Formed PEDOT:PSS Hydrogels Enable Injectable, Soft, and Healable Organic Bioelectronics. Advanced Materials, 2020, 32, e1904752.	11.1	158
167	Photonic hydrogel sensors. Biotechnology Advances, 2016, 34, 250-271.	6.0	157
168	Crosslinking Strategies for 3D Bioprinting of Polymeric Hydrogels. Small, 2020, 16, e2002931.	5.2	157
169	Strategies towards enabling lithium metal in batteries: interphases and electrodes. Energy and Environmental Science, 2021, 14, 5289-5314.	15.6	156
170	Hierarchical Fabrication of Engineered Vascularized Bone Biphasic Constructs via Dual 3D Bioprinting: Integrating Regional Bioactive Factors into Architectural Design. Advanced Healthcare Materials, 2016, 5, 2174-2181.	3.9	153
171	A Multifunctional Polymeric Periodontal Membrane with Osteogenic and Antibacterial Characteristics. Advanced Functional Materials, 2018, 28, 1703437.	7.8	152
172	Layerâ€byâ€Layer Assembly of 3D Tissue Constructs with Functionalized Graphene. Advanced Functional Materials, 2014, 24, 6136-6144.	7.8	151
173	Spatially and temporally controlled hydrogels for tissue engineering. Materials Science and Engineering Reports, 2017, 119, 1-35.	14.8	151
174	3D-Printed Ultra-Robust Surface-Doped Porous Silicone Sensors for Wearable Biomonitoring. ACS Nano, 2020, 14, 1520-1532.	7.3	151
175	Nanoengineered biomimetic hydrogels for guiding human stem cell osteogenesis in three dimensional microenvironments. Journal of Materials Chemistry B, 2016, 4, 3544-3554.	2.9	149
176	Gelatin methacrylate as a promising hydrogel for 3D microscale organization and proliferation of dielectrophoretically patterned cells. Lab on A Chip, 2012, 12, 2959.	3.1	148
177	Effective bioprinting resolution in tissue model fabrication. Lab on A Chip, 2019, 19, 2019-2037.	3.1	148
178	Enhancing cell penetration and proliferation in chitosan hydrogels for tissue engineering applications. Biomaterials, 2011, 32, 9719-9729.	5.7	147
179	An injectable shear-thinning biomaterial for endovascular embolization. Science Translational Medicine, 2016, 8, 365ra156.	5.8	147
180	Aligned Carbon Nanotubeâ€“Based Flexible Gel Substrates for Engineering Biohybrid Tissue Actuators. Advanced Functional Materials, 2015, 25, 4486-4495.	7.8	146

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181	Highly Stretchable Potentiometric pH Sensor Fabricated via Laser Carbonization and Machining of Carbonâ^'Polyaniline Composite. ACS Applied Materials & Interfaces, 2017, 9, 9015-9023.	4.0	146
182	A Soft Lithographic Approach To Fabricate Patterned Microfluidic Channels. Analytical Chemistry, 2004, 76, 3675-3681.	3.2	145
183	Engineering systems for the generation of patterned co-cultures for controlling cellâ€“cell interactions. Biochimica Et Biophysica Acta - General Subjects, 2011, 1810, 239-250.	1.1	145
184	Venous malformations: clinical diagnosis and treatment. Cardiovascular Diagnosis and Therapy, 2016, 6, 557-569.	0.7	145
185	Hybrid hydrogel-aligned carbon nanotube scaffolds to enhance cardiac differentiation of embryoid bodies. Acta Biomaterialia, 2016, 31, 134-143.	4.1	145
186	Electrochemical desorption of self-assembled monolayers for engineering cellular tissues. Biomaterials, 2009, 30, 3573-3579.	5.7	143
187	Polyphenol uses in biomaterials engineering. Biomaterials, 2018, 167, 91-106.	5.7	141
188	Structural analysis of photocrosslinkable methacryloyl-modified protein derivatives. Biomaterials, 2017, 139, 163-171.	5.7	140
189	Electrically Driven Microengineered Bioinspired Soft Robots. Advanced Materials, 2018, 30, 1704189.	11.1	140
190	Development of hydrogels for regenerative engineering. Biotechnology Journal, 2017, 12, 1600394.	1.8	139
191	A low-cost flexible pH sensor array for wound assessment. Sensors and Actuators B: Chemical, 2016, 229, 609-617.	4.0	138
192	Highly elastomeric poly(glycerol sebacate)-co-poly(ethylene glycol) amphiphilic block copolymers. Biomaterials, 2013, 34, 3970-3983.	5.7	137
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