

# Jason A Burdick

## List of Publications by Year in descending order

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305  
papers

41,297  
citations

1233

110  
h-index

2680

193  
g-index

314  
all docs

314  
docs citations

314  
times ranked

32130  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hyaluronic Acid Hydrogels for Biomedical Applications. <i>Advanced Materials</i> , 2011, 23, H41-56.	11.1	1,593
2	A practical guide to hydrogels for cell culture. <i>Nature Methods</i> , 2016, 13, 405-414.	9.0	1,348
3	Degradation-mediated cellular traction directs stem cell fate in covalently crosslinked three-dimensional hydrogels. <i>Nature Materials</i> , 2013, 12, 458-465.	13.3	982
4	Photoencapsulation of osteoblasts in injectable RGD-modified PEG hydrogels for bone tissue engineering. <i>Biomaterials</i> , 2002, 23, 4315-4323.	5.7	906
5	Direct 3D Printing of Shear-Thinning Hydrogels into Self-Healing Hydrogels. <i>Advanced Materials</i> , 2015, 27, 5075-5079.	11.1	831
6	Shear-thinning hydrogels for biomedical applications. <i>Soft Matter</i> , 2012, 8, 260-272.	1.2	712
7	Controlled Degradation and Mechanical Behavior of Photopolymerized Hyaluronic Acid Networks. <i>Biomacromolecules</i> , 2005, 6, 386-391.	2.6	669
8	Engineering cartilage tissue. <i>Advanced Drug Delivery Reviews</i> , 2008, 60, 243-262.	6.6	650
9	Hydrogel microparticles for biomedical applications. <i>Nature Reviews Materials</i> , 2020, 5, 20-43.	23.3	646
10	Hyaluronic acid hydrogel for controlled self-renewal and differentiation of human embryonic stem cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 11298-11303.	3.3	615
11	Stiffening hydrogels to probe short- and long-term cellular responses to dynamic mechanics. <i>Nature Communications</i> , 2012, 3, 792.	5.8	574
12	The potential to improve cell infiltration in composite fiber-aligned electrospun scaffolds by the selective removal of sacrificial fibers. <i>Biomaterials</i> , 2008, 29, 2348-2358.	5.7	557
13	Review: Photopolymerizable and Degradable Biomaterials for Tissue Engineering Applications. <i>Tissue Engineering</i> , 2007, 13, 2369-2385.	4.9	556
14	Biofabrication: reappraising the definition of an evolving field. <i>Biofabrication</i> , 2016, 8, 013001.	3.7	523
15	Biofabrication strategies for 3D in vitro models and regenerative medicine. <i>Nature Reviews Materials</i> , 2018, 3, 21-37.	23.3	502
16	3D Printing of Shear-Thinning Hyaluronic Acid Hydrogels with Secondary Cross-Linking. <i>ACS Biomaterials Science and Engineering</i> , 2016, 2, 1743-1751.	2.6	473
17	Biofabrication: A Guide to Technology and Terminology. <i>Trends in Biotechnology</i> , 2018, 36, 384-402.	4.9	465
18	Cell-mediated fibre recruitment drives extracellular matrix mechanosensing in engineered fibrillar microenvironments. <i>Nature Materials</i> , 2015, 14, 1262-1268.	13.3	464

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19	Moving from static to dynamic complexity in hydrogel design. <i>Nature Communications</i> , 2012, 3, 1269.	5.8	445
20	Hydrogel design for cartilage tissue engineering: A case study with hyaluronic acid. <i>Biomaterials</i> , 2011, 32, 8771-8782.	5.7	443
21	Recent advances in hyaluronic acid hydrogels for biomedical applications. <i>Current Opinion in Biotechnology</i> , 2016, 40, 35-40.	3.3	441
22	Engineered Microenvironments for Controlled Stem Cell Differentiation. <i>Tissue Engineering - Part A</i> , 2009, 15, 205-219.	1.6	429
23	Injectable and bioresponsive hydrogels for on-demand matrix metalloproteinase inhibition. <i>Nature Materials</i> , 2014, 13, 653-661.	13.3	419
24	A Generalizable Strategy for the 3D Bioprinting of Hydrogels from Nonviscous Photo-crosslinkable Inks. <i>Advanced Materials</i> , 2017, 29, 1604983.	11.1	414
25	Influence of Three-Dimensional Hyaluronic Acid Microenvironments on Mesenchymal Stem Cell Chondrogenesis. <i>Tissue Engineering - Part A</i> , 2009, 15, 243-254.	1.6	408
26	Shear-thinning and self-healing hydrogels as injectable therapeutics and for 3D-printing. <i>Nature Protocols</i> , 2017, 12, 1521-1541.	5.5	382
27	Nuclear-Import Receptors Reverse Aberrant Phase Transitions of RNA-Binding Proteins with Prion-like Domains. <i>Cell</i> , 2018, 173, 677-692.e20.	13.5	376
28	Rational Design of Network Properties in Guest-Host Assembled and Shear-Thinning Hyaluronic Acid Hydrogels. <i>Biomacromolecules</i> , 2013, 14, 4125-4134.	2.6	349
29	Hydrogels that mimic developmentally relevant matrix and N-cadherin interactions enhance MSC chondrogenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 10117-10122.	3.3	344
30	Fabrication of Gradient Hydrogels Using a Microfluidics/Photopolymerization Process. <i>Langmuir</i> , 2004, 20, 5153-5156.	1.6	338
31	Enhanced MSC chondrogenesis following delivery of TGF- $\beta$ 3 from alginate microspheres within hyaluronic acid hydrogels in vitro and in vivo. <i>Biomaterials</i> , 2011, 32, 6425-6434.	5.7	327
32	Swelling-Induced Surface Patterns in Hydrogels with Gradient Crosslinking Density. <i>Advanced Functional Materials</i> , 2009, 19, 3038-3045.	7.8	305
33	The bioprinting roadmap. <i>Biofabrication</i> , 2020, 12, 022002.	3.7	291
34	MATERIALS SCIENCE: Smart Biomaterials. <i>Science</i> , 2004, 305, 1923-1924.	6.0	281
35	Shear-Thinning Supramolecular Hydrogels with Secondary Autonomous Covalent Crosslinking to Modulate Viscoelastic Properties In Vivo. <i>Advanced Functional Materials</i> , 2015, 25, 636-644.	7.8	278
36	Local nascent protein deposition and remodelling guide mesenchymal stromal cell mechanosensing and fate in three-dimensional hydrogels. <i>Nature Materials</i> , 2019, 18, 883-891.	13.3	273

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37	Jammed Microgel Inks for 3D Printing Applications. <i>Advanced Science</i> , 2019, 6, 1801076.	5.6	270
38	Injectable hydrogel properties influence infarct expansion and extent of postinfarction left ventricular remodeling in an ovine model. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 11507-11512.	3.3	267
39	The influence of hyaluronic acid hydrogel crosslinking density and macromolecular diffusivity on human MSC chondrogenesis and hypertrophy. <i>Biomaterials</i> , 2013, 34, 413-421.	5.7	265
40	Synthesis and orthogonal photopatterning of hyaluronic acid hydrogels with thiol-norbornene chemistry. <i>Biomaterials</i> , 2013, 34, 9803-9811.	5.7	263
41	N-cadherin adhesive interactions modulate matrix mechanosensing and fate commitment of mesenchymal stem cells. <i>Nature Materials</i> , 2016, 15, 1297-1306.	13.3	262
42	Methods To Assess Shear-Thinning Hydrogels for Application As Injectable Biomaterials. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 3146-3160.	2.6	261
43	Patterning network structure to spatially control cellular remodeling and stem cell fate within 3-dimensional hydrogels. <i>Biomaterials</i> , 2010, 31, 8228-8234.	5.7	258
44	Spatially controlled hydrogel mechanics to modulate stem cell interactions. <i>Soft Matter</i> , 2010, 6, 136-143.	1.2	253
45	3D bioprinting of high cell-density heterogeneous tissue models through spheroid fusion within self-healing hydrogels. <i>Nature Communications</i> , 2021, 12, 753.	5.8	247
46	Dimensionality and spreading influence MSC YAP/TAZ signaling in hydrogel environments. <i>Biomaterials</i> , 2016, 103, 314-323.	5.7	240
47	Coculture of Human Mesenchymal Stem Cells and Articular Chondrocytes Reduces Hypertrophy and Enhances Functional Properties of Engineered Cartilage. <i>Tissue Engineering - Part A</i> , 2011, 17, 1137-1145.	1.6	235
48	Injectable and Cytocompatible Tough Double- $\pi$ -Network Hydrogels through Tandem Supramolecular and Covalent Crosslinking. <i>Advanced Materials</i> , 2016, 28, 8419-8424.	11.1	233
49	Injectable Granular Hydrogels with Multifunctional Properties for Biomedical Applications. <i>Advanced Materials</i> , 2018, 30, e1705912.	11.1	224
50	Fundamentals and Applications of Photo-Cross-Linking in Bioprinting. <i>Chemical Reviews</i> , 2020, 120, 10662-10694.	23.0	222
51	Hydrogels with Reversible Mechanics to Probe Dynamic Cell Microenvironments. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 12132-12136.	7.2	220
52	Three-dimensional extrusion bioprinting of single- and double- $\pi$ -network hydrogels containing dynamic covalent crosslinks. <i>Journal of Biomedical Materials Research - Part A</i> , 2018, 106, 865-875.	2.1	218
53	Delivery of osteoinductive growth factors from degradable PEG hydrogels influences osteoblast differentiation and mineralization. <i>Journal of Controlled Release</i> , 2002, 83, 53-63.	4.8	217
54	Light-Responsive Biomaterials: Development and Applications. <i>Macromolecular Bioscience</i> , 2010, 10, 339-348.	2.1	217

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55	Chemically Modified Biopolymers for the Formation of Biomedical Hydrogels. <i>Chemical Reviews</i> , 2021, 121, 10908-10949.	23.0	216
56	Controlling Stem Cell Fate with Material Design. <i>Advanced Materials</i> , 2010, 22, 175-189.	11.1	215
57	Fibrous hyaluronic acid hydrogels that direct MSC chondrogenesis through mechanical and adhesive cues. <i>Biomaterials</i> , 2013, 34, 5571-5580.	5.7	211
58	Micro-bioreactor array for controlling cellular microenvironments. <i>Lab on A Chip</i> , 2007, 7, 710.	3.1	208
59	The influence of degradation characteristics of hyaluronic acid hydrogels on in vitro neocartilage formation by mesenchymal stem cells. <i>Biomaterials</i> , 2009, 30, 4287-4296.	5.7	205
60	Micromolding of photocrosslinkable hyaluronic acid for cell encapsulation and entrapment. <i>Journal of Biomedical Materials Research - Part A</i> , 2006, 79A, 522-532.	2.1	203
61	Engineering synthetic hydrogel microenvironments to instruct stem cells. <i>Current Opinion in Biotechnology</i> , 2013, 24, 841-846.	3.3	201
62	Progress in material design for biomedical applications. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 14444-14451.	3.3	201
63	Stimulation of neurite outgrowth by neurotrophins delivered from degradable hydrogels. <i>Biomaterials</i> , 2006, 27, 452-459.	5.7	198
64	Differential Maturation and Structureâ€“Function Relationships in Mesenchymal Stem Cell- and Chondrocyte-Seeded Hydrogels. <i>Tissue Engineering - Part A</i> , 2009, 15, 1041-1052.	1.6	196
65	The control of stem cell morphology and differentiation by hydrogel surface wrinkles. <i>Biomaterials</i> , 2010, 31, 6511-6518.	5.7	193
66	Matrix degradability controls multicellularity of 3D cell migration. <i>Nature Communications</i> , 2017, 8, 371.	5.8	192
67	Recent advances in shearâ€“thinning and selfâ€“healing hydrogels for biomedical applications. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48668.	1.3	192
68	Molded polyethylene glycol microstructures for capturing cells within microfluidic channels. <i>Lab on A Chip</i> , 2004, 4, 425.	3.1	190
69	Engineering on the Straight and Narrow: The Mechanics of Nanofibrous Assemblies for Fiber-Reinforced Tissue Regeneration. <i>Tissue Engineering - Part B: Reviews</i> , 2009, 15, 171-193.	2.5	188
70	Sustained miRNA delivery from an injectable hydrogel promotes cardiomyocyte proliferation and functional regeneration after ischaemic injury. <i>Nature Biomedical Engineering</i> , 2017, 1, 983-992.	11.6	184
71	Matching material and cellular timescales maximizes cell spreading on viscoelastic substrates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E2686-E2695.	3.3	183
72	Engineering ECM signals into biomaterials. <i>Materials Today</i> , 2012, 15, 454-459.	8.3	179

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73	Stiffening hydrogels for investigating the dynamics of hepatic stellate cell mechanotransduction during myofibroblast activation. <i>Scientific Reports</i> , 2016, 6, 21387.	1.6	176
74	Synthesis and Characterization of in Situ Cross-Linkable Hyaluronic Acid-Based Hydrogels with Potential Application for Vocal Fold Regeneration. <i>Macromolecules</i> , 2004, 37, 3239-3248.	2.2	173
75	High mesenchymal stem cell seeding densities in hyaluronic acid hydrogels produce engineered cartilage with native tissue properties. <i>Acta Biomaterialia</i> , 2012, 8, 3027-3034.	4.1	173
76	Injectable shear-thinning hydrogels engineered with a self-assembling Dock-and-Lock mechanism. <i>Biomaterials</i> , 2012, 33, 2145-2153.	5.7	173
77	Hydrolytically Degradable Hyaluronic Acid Hydrogels with Controlled Temporal Structures. <i>Biomacromolecules</i> , 2008, 9, 1088-1092.	2.6	171
78	Complex 3D-Printed Microchannels within Cell-Degradable Hydrogels. <i>Advanced Functional Materials</i> , 2018, 28, 1801331.	7.8	171
79	Sequential crosslinking to control cellular spreading in 3-dimensional hydrogels. <i>Soft Matter</i> , 2009, 5, 1601.	1.2	170
80	Mechanically Robust and Bioadhesive Collagen and Photocrosslinkable Hyaluronic Acid Semi-Interpenetrating Networks. <i>Tissue Engineering - Part A</i> , 2009, 15, 1645-1653.	1.6	167
81	Controlled activation of morphogenesis to generate a functional human microvasculature in a synthetic matrix. <i>Blood</i> , 2011, 118, 804-815.	0.6	166
82	Supramolecular Guest-Host Interactions for the Preparation of Biomedical Materials. <i>Bioconjugate Chemistry</i> , 2015, 26, 2279-2289.	1.8	162
83	To Serve and Protect: Hydrogels to Improve Stem Cell-Based Therapies. <i>Cell Stem Cell</i> , 2016, 18, 13-15.	5.2	158
84	Expanding and optimizing 3D bioprinting capabilities using complementary network bioinks. <i>Science Advances</i> , 2020, 6, .	4.7	156
85	Nanofibrous Hydrogels with Spatially Patterned Biochemical Signals to Control Cell Behavior. <i>Advanced Materials</i> , 2015, 27, 1356-1362.	11.1	153
86	Bioprinting for the Biologist. <i>Cell</i> , 2021, 184, 18-32.	13.5	152
87	Patterning hydrogels in three dimensions towards controlling cellular interactions. <i>Soft Matter</i> , 2011, 7, 830-838.	1.2	151
88	Combinatorial hydrogels with biochemical gradients for screening 3D cellular microenvironments. <i>Nature Communications</i> , 2018, 9, 614.	5.8	150
89	Sustained release of endothelial progenitor cell-derived extracellular vesicles from shear-thinning hydrogels improves angiogenesis and promotes function after myocardial infarction. <i>Cardiovascular Research</i> , 2018, 114, 1029-1040.	1.8	147
90	Enhanced Release of Small Molecules from Near-Infrared Light Responsive Polymer-Nanorod Composites. <i>ACS Nano</i> , 2011, 5, 2948-2956.	7.3	146

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91	Sacrificial nanofibrous composites provide instruction without impediment and enable functional tissue formation. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14176-14181.	3.3	145
92	Enhancing Biopolymer Hydrogel Functionality through Interpenetrating Networks. Trends in Biotechnology, 2021, 39, 519-538.	4.9	138
93	Injectable Acellular Hydrogels for Cardiac Repair. Journal of Cardiovascular Translational Research, 2011, 4, 528-542.	1.1	136
94	A Combinatorial Library of Photocrosslinkable and Degradable Materials. Advanced Materials, 2006, 18, 2614-2618.	11.1	135
95	Neurotrophin-Induced Differentiation of Human Embryonic Stem Cells on Three-Dimensional Polymeric Scaffolds. Tissue Engineering, 2005, 11, 506-512.	4.9	133
96	Engineering Stem and Stromal Cell Therapies for Musculoskeletal Tissue Repair. Cell Stem Cell, 2018, 22, 325-339.	5.2	132
97	Reversible Control of Network Properties in Azobenzene-Containing Hyaluronic Acid-Based Hydrogels. Bioconjugate Chemistry, 2018, 29, 905-913.	1.8	132
98	Photoinitiated crosslinked degradable copolymer networks for tissue engineering applications. Biomaterials, 2003, 24, 2485-2495.	5.7	131
99	Spatial control of cell-mediated degradation to regulate vasculogenesis and angiogenesis in hyaluronan hydrogels. Biomaterials, 2012, 33, 6123-6131.	5.7	129
100	Protease-degradable electrospun fibrous hydrogels. Nature Communications, 2015, 6, 6639.	5.8	126
101	Recent Advances in Enabling Technologies in 3D Printing for Precision Medicine. Advanced Materials, 2020, 32, e1902516.	11.1	126
102	Epicardial YAP/TAZ orchestrate an immunosuppressive response following myocardial infarction. Journal of Clinical Investigation, 2017, 127, 899-911.	3.9	126
103	Hydrophilic elastomeric biomaterials based on resilin-like polypeptides. Soft Matter, 2009, 5, 3412.	1.2	124
104	Solvent induced transition from wrinkles to creases in thin film gels with depth-wise crosslinking gradients. Soft Matter, 2010, 6, 5795.	1.2	122
105	Dynamic Compressive Loading Enhances Cartilage Matrix Synthesis and Distribution and Suppresses Hypertrophy in hMSC-Laden Hyaluronic Acid Hydrogels. Tissue Engineering - Part A, 2012, 18, 715-724.	1.6	121
106	Influence of gel properties on neocartilage formation by auricular chondrocytes photoencapsulated in hyaluronic acid networks. Journal of Biomedical Materials Research - Part A, 2006, 77A, 518-525.	2.1	120
107	Influence of Injectable Hyaluronic Acid Hydrogel Degradation Behavior on Infarction-Induced Ventricular Remodeling. Biomacromolecules, 2011, 12, 4127-4135.	2.6	119
108	Synergistic effects of SDF-1 $\alpha$ chemokine and hyaluronic acid release from degradable hydrogels on directing bone marrow derived cell homing to the myocardium. Biomaterials, 2012, 33, 7849-7857.	5.7	119

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109	Injectable and Conductive Granular Hydrogels for 3D Printing and Electroactive Tissue Support. <i>Advanced Science</i> , 2019, 6, 1901229.	5.6	118
110	Modular Synthesis of Biodegradable Diblock Copolymers for Designing Functional Polymersomes. <i>Journal of the American Chemical Society</i> , 2010, 132, 3654-3655.	6.6	116
111	Modulating hydrogel crosslink density and degradation to control bone morphogenetic protein delivery and in vivo bone formation. <i>Journal of Controlled Release</i> , 2014, 191, 63-70.	4.8	115
112	An anisotropic nanofiber/microsphere composite with controlled release of biomolecules for fibrous tissue engineering. <i>Biomaterials</i> , 2010, 31, 4113-4120.	5.7	114
113	Photocrosslinkable hydrogel for myocyte cell culture and injection. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2007, 81B, 312-322.	1.6	113
114	Acellular Biomaterials: An Evolving Alternative to Cell-Based Therapies. <i>Science Translational Medicine</i> , 2013, 5, 176ps4.	5.8	113
115	Injectable shear-thinning hydrogels used to deliver endothelial progenitor cells, enhance cell engraftment, and improve ischemic myocardium. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2015, 150, 1268-1277.	0.4	113
116	Sustained small molecule delivery from injectable hyaluronic acid hydrogels through host-mediated retention. <i>Journal of Materials Chemistry B</i> , 2015, 3, 8010-8019.	2.9	111
117	Advances in nanofibrous scaffolds for biomedical applications: From electrospinning to self-assembly. <i>Nano Today</i> , 2014, 9, 722-742.	6.2	109
118	Differential Behavior of Auricular and Articular Chondrocytes in Hyaluronic Acid Hydrogels. <i>Tissue Engineering - Part A</i> , 2008, 14, 1121-1131.	1.6	108
119	Genomic, epigenomic, and biophysical cues controlling the emergence of the lung alveolus. <i>Science</i> , 2021, 371, .	6.0	108
120	3D bioprinting via an in situ crosslinking technique towards engineering cartilage tissue. <i>Scientific Reports</i> , 2019, 9, 19987.	1.6	107
121	Effects of Auricular Chondrocyte Expansion on Neocartilage Formation in Photocrosslinked Hyaluronic Acid Networks. <i>Tissue Engineering</i> , 2006, 12, 2665-2673.	4.9	104
122	Kinetic study of swelling-induced surface pattern formation and ordering in hydrogel films with depth-wise crosslinking gradient. <i>Soft Matter</i> , 2010, 6, 2044.	1.2	104
123	Bioactive factors for cartilage repair and regeneration: Improving delivery, retention, and activity. <i>Acta Biomaterialia</i> , 2019, 93, 222-238.	4.1	101
124	Sustained Release of Engineered Stromal Cell-Derived Factor 1- $\beta$ From Injectable Hydrogels Effectively Recruits Endothelial Progenitor Cells and Preserves Ventricular Function After Myocardial Infarction. <i>Circulation</i> , 2013, 128, S79-86.	1.6	100
125	Influence of hyaluronic acid modification on CD44 binding towards the design of hydrogel biomaterials. <i>Biomaterials</i> , 2019, 222, 119451.	5.7	100
126	Injectable Shear-Thinning Hydrogels for Minimally Invasive Delivery to Infarcted Myocardium to Limit Left Ventricular Remodeling. <i>Circulation: Cardiovascular Interventions</i> , 2016, 9, .	1.4	98



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127	Conversion and temperature profiles during the photoinitiated polymerization of thick orthopaedic biomaterials. <i>Biomaterials</i> , 2001, 22, 1779-1786.	5.7	97
128	Light-Induced Temperature Transitions in Biodegradable Polymer and Nanorod Composites. <i>Small</i> , 2009, 5, 1830-1834.	5.2	96
129	Programmed biomolecule delivery to enable and direct cell migration for connective tissue repair. <i>Nature Communications</i> , 2017, 8, 1780.	5.8	96
130	Biodegradable Fibrous Scaffolds with Tunable Properties Formed from Photo-Cross-Linkable Poly(glycerol sebacate). <i>ACS Applied Materials &amp; Interfaces</i> , 2009, 1, 1878-1886.	4.0	94
131	Local Hydrogel Release of Recombinant TIMP-3 Attenuates Adverse Left Ventricular Remodeling After Experimental Myocardial Infarction. <i>Science Translational Medicine</i> , 2014, 6, 223ra21.	5.8	94
132	An initial investigation of photocurable three-dimensional lactic acid based scaffolds in a critical-sized cranial defect. <i>Biomaterials</i> , 2003, 24, 1613-1620.	5.7	92
133	Gradients with Depth in Electrospun Fibrous Scaffolds for Directed Cell Behavior. <i>Biomacromolecules</i> , 2011, 12, 2344-2350.	2.6	92
134	Enhanced mechanosensing of cells in synthetic 3D matrix with controlled biophysical dynamics. <i>Nature Communications</i> , 2021, 12, 3514.	5.8	92
135	MRI evaluation of injectable hyaluronic acid-based hydrogel therapy to limit ventricular remodeling after myocardial infarction. <i>Biomaterials</i> , 2015, 69, 65-75.	5.7	91
136	Surface and bulk modifications to photocrosslinked polyanhydrides to control degradation behavior. <i>Journal of Biomedical Materials Research Part B</i> , 2000, 51, 352-359.	3.0	89
137	Multiscale model predicts increasing focal adhesion size with decreasing stiffness in fibrous matrices. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E4549-E4555.	3.3	88
138	Electrospun Fibrous Scaffolds with Multiscale and Photopatterned Porosity. <i>Macromolecular Bioscience</i> , 2010, 10, 265-270.	2.1	87
139	Secondary Photocrosslinking of Injectable Shear-Thinning Dock-and-Lock Hydrogels. <i>Advanced Healthcare Materials</i> , 2013, 2, 1028-1036.	3.9	85
140	Harnessing Interfacial Phenomena to Program the Release Properties of Hollow Microcapsules. <i>Advanced Functional Materials</i> , 2012, 22, 131-138.	7.8	84
141	Hydrogels with differential and patterned mechanics to study stiffness-mediated myofibroblastic differentiation of hepatic stellate cells. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 38, 198-208.	1.5	84
142	Injectable and protease-degradable hydrogel for siRNA sequestration and triggered delivery to the heart. <i>Journal of Controlled Release</i> , 2018, 285, 152-161.	4.8	84
143	Gallol-derived ECM-mimetic adhesive bioinks exhibiting temporal shear-thinning and stabilization behavior. <i>Acta Biomaterialia</i> , 2019, 95, 165-175.	4.1	84
144	Influence of Microgel Fabrication Technique on Granular Hydrogel Properties. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 4269-4281.	2.6	84

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145	Stem Cell Response to Spatially and Temporally Displayed and Reversible Surface Topography. <i>Advanced Healthcare Materials</i> , 2013, 2, 155-164.	3.9	81
146	Selective Proteolytic Degradation of Guest-Host Assembled, Injectable Hyaluronic Acid Hydrogels. <i>ACS Biomaterials Science and Engineering</i> , 2015, 1, 277-286.	2.6	79
147	Engineered Hydrogels for Local and Sustained Delivery of RNA Interference Therapies. <i>Advanced Healthcare Materials</i> , 2017, 6, 1601041.	3.9	79
148	Fabrication and Modeling of Dynamic Multipolymer Nanofibrous Scaffolds. <i>Journal of Biomechanical Engineering</i> , 2009, 131, 101012.	0.6	78
149	New Directions in Photopolymerizable Biomaterials. <i>MRS Bulletin</i> , 2002, 27, 130-136.	1.7	73
150	Light-Sensitive Polypeptide Hydrogel and Nanorod Composites. <i>Small</i> , 2010, 6, 1608-1611.	5.2	72
151	Hyaluronic acid hydrogel stiffness and oxygen tension affect cancer cell fate and endothelial sprouting. <i>Biomaterials Science</i> , 2014, 2, 655.	2.6	72
152	Cartilage Repair and Subchondral Bone Remodeling in Response to Focal Lesions in a Mini-Pig Model: Implications for Tissue Engineering. <i>Tissue Engineering - Part A</i> , 2015, 21, 850-860.	1.6	72
153	Gradually softening hydrogels for modeling hepatic stellate cell behavior during fibrosis regression. <i>Integrative Biology (United Kingdom)</i> , 2016, 8, 720-728.	0.6	72
154	One-Step Generation of Multifunctional Polyelectrolyte Microcapsules <i>via</i> Nanoscale Interfacial Complexation in Emulsion (NICE). <i>ACS Nano</i> , 2015, 9, 8269-8278.	7.3	70
155	Mechanically dynamic PDMS substrates to investigate changing cell environments. <i>Biomaterials</i> , 2017, 145, 23-32.	5.7	68
156	Biodegradable and radically polymerized elastomers with enhanced processing capabilities. <i>Biomedical Materials (Bristol)</i> , 2008, 3, 034104.	1.7	67
157	3D printing of photocurable poly(glycerol sebacate) elastomers. <i>Biofabrication</i> , 2016, 8, 045004.	3.7	67
158	Injectable, Guest-Host Assembled Polyethylenimine Hydrogel for siRNA Delivery. <i>Biomacromolecules</i> , 2017, 18, 77-86.	2.6	67
159	Synthesis and characterization of tetrafunctional lactic acid oligomers: A potential in situ forming degradable orthopaedic biomaterial. <i>Journal of Polymer Science Part A</i> , 2001, 39, 683-692.	2.5	66
160	Injectable Supramolecular Hydrogel/Microgel Composites for Therapeutic Delivery. <i>Macromolecular Bioscience</i> , 2019, 19, e1800248.	2.1	65
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