

Brian Aguado

List of Publications by Citations

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217
papers

11,438
citations

57
h-index

100
g-index

232
ext. papers

13,578
ext. citations

10.3
avg, IF

6.99
L-index

#	Paper	IF	Citations
217	Mechanical memory and dosing influence stem cell fate. <i>Nature Materials</i> , 2014 , 13, 645-52	27	727
216	Cytocompatible click-based hydrogels with dynamically tunable properties through orthogonal photoconjugation and photocleavage reactions. <i>Nature Chemistry</i> , 2011 , 3, 925-31	17.6	528
215	A Versatile Synthetic Extracellular Matrix Mimic via Thiol-Norbornene Photopolymerization. <i>Advanced Materials</i> , 2009 , 21, 5005-5010	24	478
214	The design of reversible hydrogels to capture extracellular matrix dynamics. <i>Nature Reviews Materials</i> , 2016 , 1,	73.3	406
213	In situ elasticity modulation with dynamic substrates to direct cell phenotype. <i>Biomaterials</i> , 2010 , 31, 1-8	15.6	346
212	Spatial and temporal control of the alkyne-azide cycloaddition by photoinitiated Cu(II) reduction. <i>Nature Chemistry</i> , 2011 , 3, 256-59	17.6	316
211	Biophysically defined and cytocompatible covalently adaptable networks as viscoelastic 3D cell culture systems. <i>Advanced Materials</i> , 2014 , 26, 865-72	24	265
210	Attachment of fibronectin to poly(vinyl alcohol) hydrogels promotes NIH3T3 cell adhesion, proliferation, and migration. <i>Journal of Biomedical Materials Research Part B</i> , 2001 , 57, 217-23		245
209	Advances in islet encapsulation technologies. <i>Nature Reviews Drug Discovery</i> , 2017 , 16, 338-350	64.1	214
208	Engineered bone development from a pre-osteoblast cell line on three-dimensional scaffolds. <i>Tissue Engineering</i> , 2000 , 6, 605-17		193
207	Progress in material design for biomedical applications. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 14444-51	11.5	174
206	Predicting Controlled-Release Behavior of Degradable PLA-b-PEG-b-PLA Hydrogels. <i>Macromolecules</i> , 2001 , 34, 4630-4635	5.5	168
205	Hydrogels with Reversible Mechanics to Probe Dynamic Cell Microenvironments. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 12132-12136	16.4	165
204	Synthesis and Characterization of Photopolymerized Multifunctional Hydrogels: Water-Soluble Poly(Vinyl Alcohol) and Chondroitin Sulfate Macromers for Chondrocyte Encapsulation. <i>Macromolecules</i> , 2004 , 37, 6726-6733	5.5	157
203	Mixed Mode Thiol-Acrylate Photopolymerizations for the Synthesis of PEG/Peptide Hydrogels. <i>Macromolecules</i> , 2008 , 41, 6019-6026	5.5	149
202	Harnessing nanoparticles for immune modulation. <i>Trends in Immunology</i> , 2015 , 36, 419-27	14.4	148
201	Dynamic stiffening of poly(ethylene glycol)-based hydrogels to direct valvular interstitial cell phenotype in a three-dimensional environment. <i>Biomaterials</i> , 2015 , 49, 47-56	15.6	148

200	In vitro follicle growth supports human oocyte meiotic maturation. <i>Scientific Reports</i> , 2015 , 5, 17323	4.9	141
199	Spatially patterned matrix elasticity directs stem cell fate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E4439-45	11.5	138
198	Reaction Rates and Mechanisms for Radical, Photoinitiated Addition of Thiols to Alkynes, and Implications for Thiol-Ene Photopolymerizations and Click Reactions. <i>Macromolecules</i> , 2010 , 43, 4113-4119	5.5	138
197	Redirecting valvular myofibroblasts into dormant fibroblasts through light-mediated reduction in substrate modulus. <i>PLoS ONE</i> , 2012 , 7, e39969	3.7	126
196	Measuring dynamic cell-material interactions and remodeling during 3D human mesenchymal stem cell migration in hydrogels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, E3757-64	11.5	121
195	Hydrogels preserve native phenotypes of valvular fibroblasts through an elasticity-regulated PI3K/AKT pathway. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 19336-41	11.5	117
194	Mechanical Properties and Degradation of Chain and Step Polymerized Photodegradable Hydrogels. <i>Macromolecules</i> , 2013 , 46,	5.5	116
193	In vivo capture and label-free detection of early metastatic cells. <i>Nature Communications</i> , 2015 , 6, 8094	17.4	100
192	Engineering precision biomaterials for personalized medicine. <i>Science Translational Medicine</i> , 2018 , 10,	17.5	99
191	Materials for Non-Viral Gene Delivery. <i>Annual Review of Materials Research</i> , 2001 , 31, 25-46	12.8	99
190	Vasculogenic hydrogel enhances islet survival, engraftment, and function in leading extrahepatic sites. <i>Science Advances</i> , 2017 , 3, e1700184	14.3	95
189	A Reversible and Repeatable Thiol-Ene Bioconjugation for Dynamic Patterning of Signaling Proteins in Hydrogels. <i>ACS Central Science</i> , 2018 , 4, 909-916	16.8	95
188	Reversible Control of Network Properties in Azobenzene-Containing Hyaluronic Acid-Based Hydrogels. <i>Bioconjugate Chemistry</i> , 2018 , 29, 905-913	6.3	94
187	A Statistical Kinetic Model for the Bulk Degradation of PLA-b-PEG-b-PLA Hydrogel Networks: Incorporating Network Non-Idealities. <i>Journal of Physical Chemistry B</i> , 2001 , 105, 8069-8076	3.4	94
186	Photopolymerized dynamic hydrogels with tunable viscoelastic properties through thioester exchange. <i>Biomaterials</i> , 2018 , 178, 496-503	15.6	90
185	Thiol-ene and photo-cleavage chemistry for controlled presentation of biomolecules in hydrogels. <i>Journal of Controlled Release</i> , 2015 , 219, 95-106	11.7	87
184	Coumarin-Based Photodegradable Hydrogel: Design, Synthesis, Gelation, and Degradation Kinetics.. <i>ACS Macro Letters</i> , 2014 , 3, 515-519	6.6	82
183	Small peptide functionalized thiol-ene hydrogels as culture substrates for understanding valvular interstitial cell activation and de novo tissue deposition. <i>Acta Biomaterialia</i> , 2012 , 8, 3201-9	10.8	78

182	Transforming growth factor-beta 1 delivery from microporous scaffolds decreases inflammation post-implant and enhances function of transplanted islets. <i>Biomaterials</i> , 2016 , 80, 11-19	15.6	76
181	Design and characterization of a synthetically accessible, photodegradable hydrogel for user-directed formation of neural networks. <i>Biomacromolecules</i> , 2014 , 15, 2808-16	6.9	74
180	Ultrathin gradient films using thiol-ene polymerizations. <i>Journal of Polymer Science Part A</i> , 2006 , 44, 7027-7039	7.4	
179	Engineering the pre-metastatic niche. <i>Nature Biomedical Engineering</i> , 2017 , 1,	19	73
178	In vivo reprogramming of immune cells: Technologies for induction of antigen-specific tolerance. <i>Advanced Drug Delivery Reviews</i> , 2017 , 114, 240-255	18.5	70
177	Nanoparticle delivery of donor antigens for transplant tolerance in allogeneic islet transplantation. <i>Biomaterials</i> , 2014 , 35, 8887-8894	15.6	69
176	Microarray analyses to quantify advantages of 2D and 3D hydrogel culture systems in maintaining the native valvular interstitial cell phenotype. <i>Biomaterials</i> , 2016 , 74, 31-41	15.6	68
175	Amplified Photodegradation of Cell-Laden Hydrogels via an Addition-Fragmentation Chain Transfer Reaction. <i>Advanced Materials</i> , 2017 , 29, 1605001	24	68
174	Enhanced Survival with Implantable Scaffolds That Capture Metastatic Breast Cancer Cells In Vivo. <i>Cancer Research</i> , 2016 , 76, 5209-18	10.1	68
173	An antigen-encapsulating nanoparticle platform for T1/17 immune tolerance therapy. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2017 , 13, 191-200	6	66
172	Engineering the ovarian cycle using in vitro follicle culture. <i>Human Reproduction</i> , 2015 , 30, 1386-95	5.7	64
171	Cardiac valve cells and their microenvironment--insights from in vitro studies. <i>Nature Reviews Cardiology</i> , 2014 , 11, 715-27	14.8	62
170	Living radical photopolymerization induced grafting on thiol-ene based substrates. <i>Journal of Polymer Science Part A</i> , 2005 , 43, 2134-2144	2.5	61
169	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	61
168	A Generalized Bulk-Degradation Model for Hydrogel Networks Formed from Multivinyl Cross-linking Molecules. <i>Journal of Physical Chemistry B</i> , 2001 , 105, 5131-5138	3.4	61
167	Biodegradable antigen-associated PLG nanoparticles tolerize Th2-mediated allergic airway inflammation pre- and postsensitization. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 5059-64	11.5	61
166	Plakophilin-2 loss promotes TGF- β /p38 MAPK-dependent fibrotic gene expression in cardiomyocytes. <i>Journal of Cell Biology</i> , 2016 , 212, 425-38	7.3	60
165	Modulation of leukocyte infiltration and phenotype in microporous tissue engineering scaffolds via vector induced IL-10 expression. <i>Biomaterials</i> , 2014 , 35, 2024-31	15.6	60

164	A Diels-Alder modulated approach to control and sustain the release of dexamethasone and induce osteogenic differentiation of human mesenchymal stem cells. <i>Biomaterials</i> , 2013 , 34, 4150-4158	15.6	60
163	A peptide functionalized poly(ethylene glycol) (PEG) hydrogel for investigating the influence of biochemical and biophysical matrix properties on tumor cell migration. <i>Biomaterials Science</i> , 2014 , 2, 1024-1034	7.4	59
162	A Methacrylated Photoiniferter as a Chemical Basis for Microlithography: Micropatterning Based on Photografting Polymerization. <i>Macromolecules</i> , 2003 , 36, 6739-6745	5.5	59
161	Peptide-Conjugated Nanoparticles Reduce Positive Co-stimulatory Expression and T Cell Activity to Induce Tolerance. <i>Molecular Therapy</i> , 2017 , 25, 1676-1685	11.7	57
160	Tolerogenic Ag-PLG nanoparticles induce tregs to suppress activated diabetogenic CD4 and CD8 T cells. <i>Journal of Autoimmunity</i> , 2018 , 89, 112-124	15.5	56
159	Hydrazone covalent adaptable networks modulate extracellular matrix deposition for cartilage tissue engineering. <i>Acta Biomaterialia</i> , 2019 , 83, 71-82	10.8	56
158	Sonic hedgehog and neurotrophin-3 increase oligodendrocyte numbers and myelination after spinal cord injury. <i>Integrative Biology (United Kingdom)</i> , 2014 , 6, 694-705	3.7	55
157	Synthesis of a novel methacrylic monomer iniferter and its application in surface photografting on crosslinked polymer substrates. <i>Journal of Polymer Science Part A</i> , 2002 , 40, 1885-1891	2.5	54
156	Clickable Microgel Scaffolds as Platforms for 3D Cell Encapsulation. <i>Advanced Healthcare Materials</i> , 2017 , 6, 1700254	10.1	53
155	Myofibroblastic activation of valvular interstitial cells is modulated by spatial variations in matrix elasticity and its organization. <i>Biomaterials</i> , 2017 , 131, 131-144	15.6	53
154	Controlled Delivery of Single or Multiple Antigens in Tolerogenic Nanoparticles Using Peptide-Polymer Bioconjugates. <i>Molecular Therapy</i> , 2017 , 25, 1655-1664	11.7	53
153	Immune Tolerance for Autoimmune Disease and Cell Transplantation. <i>Annual Review of Biomedical Engineering</i> , 2016 , 18, 181-205	12	53
152	Modulation of matrix elasticity with PEG hydrogels to study melanoma drug responsiveness. <i>Biomaterials</i> , 2014 , 35, 4310-8	15.6	52
151	Monitoring degradation of matrix metalloproteinases-cleavable PEG hydrogels via multiple particle tracking microrheology. <i>Soft Matter</i> , 2013 , 9, 1570-1579	3.6	52
150	3D Photofixation Lithography in Diels-Alder Networks. <i>Macromolecular Rapid Communications</i> , 2012 , 33, 2092-6	4.8	51
149	PEG-Anthracene Hydrogels as an On-Demand Stiffening Matrix To Study Mechanobiology. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 9912-9916	16.4	50
148	Biomaterial bridges enable regeneration and re-entry of corticospinal tract axons into the caudal spinal cord after SCI: Association with recovery of forelimb function. <i>Biomaterials</i> , 2015 , 65, 1-12	15.6	49
147	Poly(lactide-co-glycolide) microspheres for MRI-monitored transcatheter delivery of sorafenib to liver tumors. <i>Journal of Controlled Release</i> , 2014 , 184, 10-7	11.7	49

146	Aligned hydrogel tubes guide regeneration following spinal cord injury. <i>Acta Biomaterialia</i> , 2019 , 86, 312-322	10.8	49
145	Extracellular matrix mediators of metastatic cell colonization characterized using scaffold mimics of the pre-metastatic niche. <i>Acta Biomaterialia</i> , 2016 , 33, 13-24	10.8	48
144	It's All in the Delivery: Designing Hydrogels for Cell and Non-viral Gene Therapies. <i>Molecular Therapy</i> , 2018 , 26, 2087-2106	11.7	48
143	Multifunctional Pancreatic Islet Encapsulation Barriers Achieved via Multilayer PEG Hydrogels. <i>Cell Transplantation</i> , 2007 , 16, 1049-1057	4	48
142	Osteogenic differentiation of human mesenchymal stem cells on $\alpha 5$ integrin binding peptide hydrogels is dependent on substrate elasticity. <i>Biomaterials Science</i> , 2014 , 2, 352-361	7.4	47
141	Secondary Photocrosslinking of Click Hydrogels To Probe Myoblast Mechanotransduction in Three Dimensions. <i>Journal of the American Chemical Society</i> , 2018 , 140, 11585-11588	16.4	47
140	Overcoming challenges in treating autoimmunity: Development of tolerogenic immune-modifying nanoparticles. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2019 , 18, 282-291	6	46
139	Multifunctional bioscaffolds for 3D culture of melanoma cells reveal increased MMP activity and migration with BRAF kinase inhibition. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 5366-71	11.5	44
138	Gliadin Nanoparticles Induce Immune Tolerance to Gliadin in Mouse Models of Celiac Disease. <i>Gastroenterology</i> , 2020 , 158, 1667-1681.e12	13.3	43
137	Photoregulated Hydrazone-Based Hydrogel Formation for Biochemically Patterning 3D Cellular Microenvironments. <i>ACS Macro Letters</i> , 2016 , 5, 19-23	6.6	43
136	Conjugation of Transforming Growth Factor Beta to Antigen-Loaded Poly(lactide- co-glycolide) Nanoparticles Enhances Efficiency of Antigen-Specific Tolerance. <i>Bioconjugate Chemistry</i> , 2018 , 29, 813-823	6.3	43
135	Intravascular innate immune cells reprogrammed via intravenous nanoparticles to promote functional recovery after spinal cord injury. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 14947-14954	11.5	42
134	Designing drug-free biodegradable nanoparticles to modulate inflammatory monocytes and neutrophils for ameliorating inflammation. <i>Journal of Controlled Release</i> , 2019 , 300, 185-196	11.7	42
133	Size-specific follicle selection improves mouse oocyte reproductive outcomes. <i>Reproduction</i> , 2015 , 150, 183-92	3.8	41
132	Injectable Carbon Nanotube-Functionalized Reverse Thermal Gel Promotes Cardiomyocytes Survival and Maturation. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 31645-31656	9.5	39
131	Role of cell-matrix interactions on VIC phenotype and tissue deposition in 3D PEG hydrogels. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016 , 10, E443-E453	4.4	37
130	Tolerance induction using nanoparticles bearing HY peptides in bone marrow transplantation. <i>Biomaterials</i> , 2016 , 76, 1-10	15.6	37
129	A synthetic modular approach for modeling the role of the 3D microenvironment in tumor progression. <i>Scientific Reports</i> , 2015 , 5, 17814	4.9	37

128	Three-dimensional systems for in vitro follicular culture: overview of alginate-based matrices. <i>Reproduction, Fertility and Development</i> , 2014 , 26, 915-30	1.8	37
127	Photoclick Chemistry: A Bright Idea. <i>Chemical Reviews</i> , 2021 , 121, 6915-6990	68.1	37
126	Heparin-chitosan nanoparticle functionalization of porous poly(ethylene glycol) hydrogels for localized lentivirus delivery of angiogenic factors. <i>Biomaterials</i> , 2014 , 35, 8687-93	15.6	36
125	Adaptable boronate ester hydrogels with tunable viscoelastic spectra to probe timescale dependent mechanotransduction. <i>Biomaterials</i> , 2019 , 223, 119430	15.6	35
124	Three-Dimensional High-Throughput Cell Encapsulation Platform to Study Changes in Cell-Matrix Interactions. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 21914-22	9.5	35
123	Design of biodegradable nanoparticles to modulate phenotypes of antigen-presenting cells for antigen-specific treatment of autoimmune disease. <i>Biomaterials</i> , 2019 , 222, 119432	15.6	34
122	Poly(lactide-co-glycolide) microspheres for MRI-monitored delivery of sorafenib in a rabbit VX2 model. <i>Biomaterials</i> , 2015 , 61, 299-306	15.6	34
121	Relaxation of Extracellular Matrix Forces Directs Crypt Formation and Architecture in Intestinal Organoids. <i>Advanced Healthcare Materials</i> , 2020 , 9, e1901214	10.1	34
120	Neutrophils preferentially phagocytose elongated particles-An opportunity for selective targeting in acute inflammatory diseases. <i>Science Advances</i> , 2020 , 6, eaba1474	14.3	33
119	Multi-modal magnetic resonance elastography for noninvasive assessment of ovarian tissue rigidity in vivo. <i>Acta Biomaterialia</i> , 2015 , 13, 295-300	10.8	32
118	Reducing inflammation through delivery of lentivirus encoding for anti-inflammatory cytokines attenuates neuropathic pain after spinal cord injury. <i>Journal of Controlled Release</i> , 2018 , 290, 88-101	11.7	32
117	Local Immunomodulation with Anti-inflammatory Cytokine-Encoding Lentivirus Enhances Functional Recovery after Spinal Cord Injury. <i>Molecular Therapy</i> , 2018 , 26, 1756-1770	11.7	31
116	Gold Nanoparticle-Functionalized Reverse Thermal Gel for Tissue Engineering Applications. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 18671-18680	9.5	29
115	Roles of transforming growth factor- β and OB-cadherin in porcine cardiac valve myofibroblast differentiation. <i>FASEB Journal</i> , 2014 , 28, 4551-62	0.9	29
114	Tissue Engineering Approaches to Modulate the Inflammatory Milieu following Spinal Cord Injury. <i>Cells Tissues Organs</i> , 2016 , 202, 52-66	2.1	29
113	Reproducible Dendronized PEG Hydrogels via SPAAC Cross-Linking. <i>Biomacromolecules</i> , 2017 , 18, 4054-4059	8.9	27
112	Modeling Controlled Photodegradation in Optically Thick Hydrogels. <i>Journal of Polymer Science Part A</i> , 2013 , 51, 1899-1911	2.5	27
111	Transcatheter aortic valve replacements alter circulating serum factors to mediate myofibroblast deactivation. <i>Science Translational Medicine</i> , 2019 , 11,	17.5	26

110	The Effect of Thiol Structure on Allyl Sulfide Photodegradable Hydrogels and their Application as a Degradable Scaffold for Organoid Passaging. <i>Advanced Materials</i> , 2020 , 32, e1905366	24	26
109	Cargo-less nanoparticles program innate immune cell responses to toll-like receptor activation. <i>Biomaterials</i> , 2019 , 218, 119333	15.6	26
108	Biomaterial Scaffolds for Controlled, Localized Gene Delivery of Regenerative Factors. <i>Advances in Wound Care</i> , 2013 , 2, 100-106	4.8	26
107	Controlled release strategies for modulating immune responses to promote tissue regeneration. <i>Journal of Controlled Release</i> , 2015 , 219, 155-166	11.7	25
106	Retrievable hydrogels for ovarian follicle transplantation and oocyte collection. <i>Biotechnology and Bioengineering</i> , 2018 , 115, 2075-2086	4.9	25
105	Enhanced User-Control of Small Molecule Drug Release from a Poly(ethylene glycol) Hydrogel via Azobenzene/Cyclodextrin Complex Tethers. <i>Journal of Materials Chemistry B</i> , 2016 , 4, 1035-1039	7.3	25
104	Epithelial-mesenchymal crosstalk influences cellular behavior in a 3D alveolus-fibroblast model system. <i>Biomaterials</i> , 2018 , 155, 124-134	15.6	25
103	Integrated surface modification of fully polymeric microfluidic devices using living radical photopolymerization chemistry. <i>Journal of Polymer Science Part A</i> , 2006 , 44, 1404-1413	2.5	24
102	A quantitative comparison of human HT-1080 fibrosarcoma cells and primary human dermal fibroblasts identifies a 3D migration mechanism with properties unique to the transformed phenotype. <i>PLoS ONE</i> , 2013 , 8, e81689	3.7	24
101	A Biosynthetic Scaffold that Facilitates Chondrocyte-Mediated Degradation and Promotes Articular Cartilage Extracellular Matrix Deposition. <i>Regenerative Engineering and Translational Medicine</i> , 2015 , 1, 11-21	2.4	23
100	Tissue geometry drives deterministic organoid patterning.. <i>Science</i> , 2022 , 375, eaaw9021	33.3	22
99	Secreted Factors From Proinflammatory Macrophages Promote an Osteoblast-Like Phenotype in Valvular Interstitial Cells. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2020 , 40, e296-e308	9.4	22
98	Immunofunctional photodegradable poly(ethylene glycol) hydrogel surfaces for the capture and release of rare cells. <i>Colloids and Surfaces B: Biointerfaces</i> , 2019 , 174, 483-492	6	22
97	PEG-peptide hydrogels reveal differential effects of matrix microenvironmental cues on melanoma drug sensitivity. <i>Integrative Biology (United Kingdom)</i> , 2017 , 9, 76-87	3.7	21
96	Cellular and molecular targeting for nanotherapeutics in transplantation tolerance. <i>Clinical Immunology</i> , 2015 , 160, 14-23	9	21
95	Synthesis of microgel sensors for spatial and temporal monitoring of protease activity. <i>ACS Biomaterials Science and Engineering</i> , 2018 , 4, 378-387	5.5	21
94	Engineering the MSC Secretome: A Hydrogel Focused Approach. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2001948	10.1	21
93	Biomaterial Scaffolds as Pre-metastatic Niche Mimics Systemically Alter the Primary Tumor and Tumor Microenvironment. <i>Advanced Healthcare Materials</i> , 2018 , 7, e1700903	10.1	20

92	Microporous Polymer Scaffolds for the Transplantation of Embryonic Stem Cell Derived Pancreatic Progenitors to a Clinically Translatable Site for the Treatment of Type I Diabetes. <i>ACS Biomaterials Science and Engineering</i> , 2018 , 4, 1770-1778	5.5	20
91	Porous bio-click microgel scaffolds control hMSC interactions and promote their secretory properties. <i>Biomaterials</i> , 2020 , 232, 119725	15.6	20
90	Biomaterial Scaffolds Recruit an Aggressive Population of Metastatic Tumor Cells. <i>Cancer Research</i> , 2019 , 79, 2042-2053	10.1	19
89	Sponge-mediated lentivirus delivery to acute and chronic spinal cord injuries. <i>Journal of Controlled Release</i> , 2015 , 204, 1-10	11.7	19
88	Secretome identification of immune cell factors mediating metastatic cell homing. <i>Scientific Reports</i> , 2015 , 5, 17566	4.9	19
87	Injury-mediated stiffening persistently activates muscle stem cells through YAP and TAZ mechanotransduction. <i>Science Advances</i> , 2021 , 7,	14.3	19
86	Designing Microgels for Cell Culture and Controlled Assembly of Tissue Microenvironments. <i>Advanced Functional Materials</i> , 2020 , 30, 1907670	15.6	18
85	Defining the Cardiac Fibroblast Secretome in a Fibrotic Microenvironment. <i>Journal of the American Heart Association</i> , 2020 , 9, e017025	6	18
84	Nuclear mechanosensing drives chromatin remodelling in persistently activated fibroblasts. <i>Nature Biomedical Engineering</i> , 2021 ,	19	18
83	Evaluation of biomaterial scaffold delivery of IL-33 as a localized immunomodulatory agent to support cell transplantation in adipose tissue. <i>Journal of Immunology and Regenerative Medicine</i> , 2018 , 1, 1-12	2.8	17
82	Microporous scaffolds support assembly and differentiation of pancreatic progenitors into β cell clusters. <i>Acta Biomaterialia</i> , 2019 , 96, 111-122	10.8	17
81	Metastatic Conditioning of Myeloid Cells at a Subcutaneous Synthetic Niche Reflects Disease Progression and Predicts Therapeutic Outcomes. <i>Cancer Research</i> , 2020 , 80, 602-612	10.1	17
80	Modulating lung immune cells by pulmonary delivery of antigen-specific nanoparticles to treat autoimmune disease. <i>Science Advances</i> , 2020 , 6,	14.3	17
79	Mold-casted non-degradable, islet macro-encapsulating hydrogel devices for restoration of normoglycemia in diabetic mice. <i>Biotechnology and Bioengineering</i> , 2016 , 113, 2485-95	4.9	17
78	Three-dimensional encapsulation of adult mouse cardiomyocytes in hydrogels with tunable stiffness. <i>Progress in Biophysics and Molecular Biology</i> , 2020 , 154, 71-79	4.7	16
77	Hydrogels with Reversible Mechanics to Probe Dynamic Cell Microenvironments. <i>Angewandte Chemie</i> , 2017 , 129, 12300-12304	3.6	15
76	PEG-Anthracene Hydrogels as an On-Demand Stiffening Matrix To Study Mechanobiology. <i>Angewandte Chemie</i> , 2019 , 131, 10017-10021	3.6	14
75	Polycistronic Delivery of IL-10 and NT-3 Promotes Oligodendrocyte Myelination and Functional Recovery in a Mouse Spinal Cord Injury Model. <i>Tissue Engineering - Part A</i> , 2020 , 26, 672-682	3.9	14

74	Evaluation of encapsulating and microporous nondegradable hydrogel scaffold designs on islet engraftment in rodent models of diabetes. <i>Biotechnology and Bioengineering</i> , 2018 , 115, 2356-2364	4.9	14
73	Wavelength-Controlled Photocleavage for the Orthogonal and Sequential Release of Multiple Proteins. <i>Angewandte Chemie</i> , 2013 , 125, 14048-14052	3.6	14
72	Bioorthogonal click chemistries enable simultaneous spatial patterning of multiple proteins to probe synergistic protein effects on fibroblast function. <i>Biomaterials</i> , 2020 , 255, 120205	15.6	13
71	Combined, Independent Small Molecule Release and Shape Memory via Nanogel-Coated Thiourethane Polymer Networks. <i>Polymer Chemistry</i> , 2016 , 7, 816-825	4.9	13
70	Quantifying heart valve interstitial cell contractile state using highly tunable poly(ethylene glycol) hydrogels. <i>Acta Biomaterialia</i> , 2019 , 96, 354-367	10.8	13
69	Quantification of particle-conjugated or particle-encapsulated peptides on interfering reagent backgrounds. <i>BioTechniques</i> , 2014 , 57, 39-44	2.5	13
68	Localized immune tolerance from FasL-functionalized PLG scaffolds. <i>Biomaterials</i> , 2019 , 192, 271-281	15.6	13
67	Semi-automated counting of axon regeneration in poly(lactide co-glycolide) spinal cord bridges. <i>Journal of Neuroscience Methods</i> , 2016 , 263, 15-22	3	12
66	Optimizing PLG nanoparticle-peptide delivery platforms for transplantation tolerance using an allogeneic skin transplant model. <i>Biomaterials</i> , 2019 , 210, 70-82	15.6	11
65	Porous Silicon Nanoparticles Embedded in Poly(lactic--glycolic acid) Nanofiber Scaffolds Deliver Neurotrophic Payloads to Enhance Neuronal Growth. <i>Advanced Functional Materials</i> , 2020 , 30, 2002560	15.6	11
64	Phototunable Viscoelasticity in Hydrogels Through Thioester Exchange. <i>Annals of Biomedical Engineering</i> , 2020 , 48, 2053-2063	4.7	11
63	Calcium Signaling Regulates Valvular Interstitial Cell Alignment and Myofibroblast Activation in Fast-Relaxing Boronate Hydrogels. <i>Macromolecular Bioscience</i> , 2020 , 20, e2000268	5.5	11
62	Spinal Progenitor-Laden Bridges Support Earlier Axon Regeneration Following Spinal Cord Injury. <i>Tissue Engineering - Part A</i> , 2018 , 24, 1588-1602	3.9	11
61	Systems analysis of dynamic transcription factor activity identifies targets for treatment in Olaparib resistant cancer cells. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 2085-2095	4.9	10
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