Kristi S Anseth

List of Publications by Year
in descending order

172 papers	27,670 citations	6254 80 h-index	5539 163 g-index
174 all docs	174 docs citations	174 times ranked	21646 citing authors

#	Article	IF	Citations
1	Hydrogels as extracellular matrix mimics for 3D cell culture. Biotechnology and Bioengineering, 2009, 103, 655-663.	3.3	2,244
2	Photodegradable Hydrogels for Dynamic Tuning of Physical and Chemical Properties. Science, 2009, 324, 59-63.	12.6	1,541
3	Mechanical properties of hydrogels and their experimental determination. Biomaterials, 1996, 17, 1647-1657.	11.4	980
4	Photoinitiated polymerization of PEG-diacrylate with lithium phenyl-2,4,6-trimethylbenzoylphosphinate: polymerization rate and cytocompatibility. Biomaterials, 2009, 30, 6702-6707.	11.4	951
5	Mechanical memory and dosing influence stem cell fate. Nature Materials, 2014, 13, 645-652.	27.5	943
6	Photoencapsulation of osteoblasts in injectable RGD-modified PEG hydrogels for bone tissue engineering. Biomaterials, 2002, 23, 4315-4323.	11.4	906
7	PEG Hydrogels for the Controlled Release of Biomolecules in Regenerative Medicine. Pharmaceutical Research, 2009, 26, 631-643.	3.5	846
8	Sequential click reactions for synthesizing and patterning three-dimensional cell microenvironments. Nature Materials, 2009, 8, 659-664.	27.5	776
9	Hydrogel properties influence ECM production by chondrocytes photoencapsulated in poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlo	3.1	743
10	Cytocompatibility of UV and visible light photoinitiating systems on cultured NIH/3T3 fibroblasts in vitro. Journal of Biomaterials Science, Polymer Edition, 2000, 11, 439-457.	3.5	674
11	Cytocompatible click-based hydrogels with dynamically tunable properties through orthogonal photoconjugation and photocleavage reactions. Nature Chemistry, 2011, 3, 925-931.	13.6	610
12	A Versatile Synthetic Extracellular Matrix Mimic via Thiolâ€Norbornene Photopolymerization. Advanced Materials, 2009, 21, 5005-5010.	21.0	578
13	The design of reversible hydrogels to capture extracellular matrix dynamics. Nature Reviews Materials, 2016, 1, .	48.7	554
14	In situ forming degradable networks and their application in tissue engineering and drug delivery. Journal of Controlled Release, 2002, 78, 199-209.	9.9	430
15	Mechanical Properties of Cellularly Responsive Hydrogels and Their Experimental Determination. Advanced Materials, 2010, 22, 3484-3494.	21.0	394
16	In situ elasticity modulation with dynamic substrates to direct cell phenotype. Biomaterials, 2010, 31, 1-8.	11.4	386
17	Thiolâ^'Yne Photopolymerizations: Novel Mechanism, Kinetics, and Step-Growth Formation of Highly Cross-Linked Networks. Macromolecules, 2009, 42, 211-217.	4.8	357
18	Valvular Myofibroblast Activation by Transforming Growth Factor-Î². Circulation Research, 2004, 95, 253-260.	4.5	349

#	Article	IF	Citations
19	Poly(ethylene glycol) hydrogels formed by thiol-ene photopolymerization for enzyme-responsive protein delivery. Biomaterials, 2009, 30, 6048-6054.	11.4	345
20	Spatial and temporal control of the alkyneâ€"azide cycloaddition by photoinitiated Cu(II) reduction. Nature Chemistry, 2011, 3, 256-259.	13.6	342
21	Biophysically Defined and Cytocompatible Covalently Adaptable Networks as Viscoelastic 3D Cell Culture Systems. Advanced Materials, 2014, 26, 865-872.	21.0	337
22	Spatiotemporal hydrogel biomaterials for regenerative medicine. Chemical Society Reviews, 2017, 46, 6532-6552.	38.1	317
23	Photodegradable, Photoadaptable Hydrogels via Radical-Mediated Disulfide Fragmentation Reaction. Macromolecules, 2011, 44, 2444-2450.	4.8	307
24	Photocrosslinking of Gelatin Macromers to Synthesize Porous Hydrogels That Promote Valvular Interstitial Cell Function. Tissue Engineering - Part A, 2009, 15, 3221-3230.	3.1	302
25	Photoreversible Patterning of Biomolecules within Clickâ€Based Hydrogels. Angewandte Chemie - International Edition, 2012, 51, 1816-1819.	13.8	270
26	Degradable thiol-acrylate photopolymers: polymerization and degradation behavior of an in situ forming biomaterial. Biomaterials, 2005, 26, 4495-4506.	11.4	257
27	Synthesis of photodegradable hydrogels as dynamically tunable cell culture platforms. Nature Protocols, 2010, 5, 1867-1887.	12.0	242
28	Synthetically Tractable Click Hydrogels for Three-Dimensional Cell Culture Formed Using Tetrazineâ€"Norbornene Chemistry. Biomacromolecules, 2013, 14, 949-953.	5.4	232
29	Hydrogels with Reversible Mechanics to Probe Dynamic Cell Microenvironments. Angewandte Chemie - International Edition, 2017, 56, 12132-12136.	13.8	220
30	Bioorthogonal Click Chemistry: An Indispensable Tool to Create Multifaceted Cell Culture Scaffolds. ACS Macro Letters, 2013, 2, 5-9.	4.8	216
31	Crosslinking Density Influences Chondrocyte Metabolism in Dynamically Loaded Photocrosslinked Poly(ethylene glycol) Hydrogels. Annals of Biomedical Engineering, 2004, 32, 407-417.	2.5	212
32	Progress in material design for biomedical applications. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14444-14451.	7.1	201
33	Tunable Hydrogels for External Manipulation of Cellular Microenvironments through Controlled Photodegradation. Advanced Materials, 2010, 22, 61-66.	21.0	196
34	Dynamic stiffening of poly(ethylene glycol)-based hydrogels to direct valvular interstitial cell phenotype in a three-dimensional environment. Biomaterials, 2015, 49, 47-56.	11.4	187
35	Photopolymerizable degradable polyanhydrides with osteocompatibility. Nature Biotechnology, 1999, 17, 156-159.	17.5	186
36	Predicting Controlled-Release Behavior of Degradable PLA-b-PEG-b-PLA Hydrogels. Macromolecules, 2001, 34, 4630-4635.	4.8	185

#	Article	IF	Citations
37	Spatially patterned matrix elasticity directs stem cell fate. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4439-45.	7.1	184
38	Three-Dimensional Biochemical Patterning of Click-Based Composite Hydrogels via Thiolene Photopolymerization. Biomacromolecules, 2008, 9, 1084-1087.	5.4	175
39	A Statistical Kinetic Model for the Bulk Degradation of PLA-b-PEG-b-PLA Hydrogel Networks. Journal of Physical Chemistry B, 2000, 104, 7043-7049.	2.6	170
40	Thiolâ€"Ene Photopolymerizations Provide a Facile Method To Encapsulate Proteins and Maintain Their Bioactivity. Biomacromolecules, 2012, 13, 2410-2417.	5.4	170
41	A review of photocrosslinked polyanhydrides:. Biomaterials, 2000, 21, 2395-2404.	11.4	169
42	Crosslinking density influences the morphology of chondrocytes photoencapsulated in PEG hydrogels during the application of compressive strain. Journal of Orthopaedic Research, 2004, 22, 1143-1149.	2.3	169
43	Photoresponsive Elastic Properties of Azobenzene-Containing Poly(ethylene-glycol)-Based Hydrogels. Biomacromolecules, 2015, 16, 798-806.	5.4	165
44	Reaction Rates and Mechanisms for Radical, Photoinitated Addition of Thiols to Alkynes, and Implications for Thiolâ^'Yne Photopolymerizations and Click Reactions. Macromolecules, 2010, 43, 4113-4119.	4.8	156
45	Synthetic Mimics of the Extracellular Matrix: How Simple is Complex Enough?. Annals of Biomedical Engineering, 2015, 43, 489-500.	2.5	155
46	Wavelengthâ€Controlled Photocleavage for the Orthogonal and Sequential Release of Multiple Proteins. Angewandte Chemie - International Edition, 2013, 52, 13803-13807.	13.8	152
47	Release Behavior of High Molecular Weight Solutes from Poly(ethylene glycol)-Based Degradable Networks. Macromolecules, 2000, 33, 2509-2515.	4.8	149
48	Measuring dynamic cellâ€"material interactions and remodeling during 3D human mesenchymal stem cell migration in hydrogels. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E3757-64.	7.1	149
49	Mechanical Properties and Degradation of Chain and Step-Polymerized Photodegradable Hydrogels. Macromolecules, 2013, 46, 2785-2792.	4.8	147
50	Redirecting Valvular Myofibroblasts into Dormant Fibroblasts through Light-mediated Reduction in Substrate Modulus. PLoS ONE, 2012, 7, e39969.	2.5	146
51	Engineering precision biomaterials for personalized medicine. Science Translational Medicine, 2018, 10, .	12.4	145
52	Dynamic Microenvironments: The Fourth Dimension. Science Translational Medicine, 2012, 4, 160ps24.	12.4	144
53	Adaptable Fast Relaxing Boronateâ€Based Hydrogels for Probing Cellâ€"Matrix Interactions. Advanced Science, 2018, 5, 1800638.	11.2	143
54	Photopolymerized dynamic hydrogels with tunable viscoelastic properties through thioester exchange. Biomaterials, 2018, 178, 496-503.	11.4	142

#	Article	IF	Citations
55	Hydrogels preserve native phenotypes of valvular fibroblasts through an elasticity-regulated PI3K/AKT pathway. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19336-19341.	7.1	140
56	Development of a Cellularly Degradable PEG Hydrogel to Promote Articular Cartilage Extracellular Matrix Deposition. Advanced Healthcare Materials, 2015, 4, 702-713.	7.6	139
57	Reversible Control of Network Properties in Azobenzene-Containing Hyaluronic Acid-Based Hydrogels. Bioconjugate Chemistry, 2018, 29, 905-913.	3.6	132
58	Dynamic covalent hydrogels as biomaterials to mimic the viscoelasticity of soft tissues. Progress in Materials Science, 2021, 120, 100738.	32.8	131
59	Extended Exposure to Stiff Microenvironments Leads to Persistent Chromatin Remodeling in Human Mesenchymal Stem Cells. Advanced Science, 2019, 6, 1801483.	11.2	128
60	Photoâ€Click Living Strategy for Controlled, Reversible Exchange of Biochemical Ligands. Advanced Materials, 2014, 26, 2521-2526.	21.0	124
61	Polymerization kinetics and volume relaxation behavior of photopolymerized multifunctional monomers producing highly crosslinked networks. Journal of Polymer Science Part A, 1994, 32, 139-147.	2.3	122
62	A Reversible and Repeatable Thiolâ€"Ene Bioconjugation for Dynamic Patterning of Signaling Proteins in Hydrogels. ACS Central Science, 2018, 4, 909-916.	11.3	122
63	Controlled two-photon photodegradation of PEG hydrogels to study and manipulate subcellular interactions on soft materials. Soft Matter, 2010, 6, 5100.	2.7	117
64	Photoclick Chemistry: A Bright Idea. Chemical Reviews, 2021, 121, 6915-6990.	47.7	113
65	Coumarin-Based Photodegradable Hydrogel: Design, Synthesis, Gelation, and Degradation Kinetics. ACS Macro Letters, 2014, 3, 515-519.	4.8	104
66	Microarray analyses to quantify advantages of 2D and 3D hydrogel culture systems in maintaining the native valvular interstitial cell phenotype. Biomaterials, 2016, 74, 31-41.	11.4	104
67	Thiol-ene and photo-cleavage chemistry for controlled presentation of biomolecules in hydrogels. Journal of Controlled Release, 2015, 219, 95-106.	9.9	103
68	Reaction Behavior of Biodegradable, Photo-Cross-Linkable Polyanhydrides. Macromolecules, 1998, 31, 4120-4125.	4.8	102
69	Exogenously Triggered, Enzymatic Degradation of Photopolymerized Hydrogels with Polycaprolactone Subunits:Â Experimental Observation and Modeling of Mass Loss Behavior. Biomacromolecules, 2006, 7, 1968-1975.	5.4	102
70	Bis-Aliphatic Hydrazone-Linked Hydrogels Form Most Rapidly at Physiological pH: Identifying the Origin of Hydrogel Properties with Small Molecule Kinetic Studies. Chemistry of Materials, 2014, 26, 2382-2387.	6.7	102
71	Controlling Network Structure in Degradable Thiolâ˜'Acrylate Biomaterials to Tune Mass Loss Behavior. Biomacromolecules, 2006, 7, 2827-2836.	5.4	94
72	Photocontrolled Nanoparticles for On-Demand Release of Proteins. Biomacromolecules, 2012, 13, 2219-2224.	5.4	94

#	Article	IF	Citations
73	Clickable Microgel Scaffolds as Platforms for 3D Cell Encapsulation. Advanced Healthcare Materials, 2017, 6, 1700254.	7.6	93
74	Design and Characterization of a Synthetically Accessible, Photodegradable Hydrogel for User-Directed Formation of Neural Networks. Biomacromolecules, 2014, 15, 2808-2816.	5.4	90
75	Surface and bulk modifications to photocrosslinked polyanhydrides to control degradation behavior. Journal of Biomedical Materials Research Part B, 2000, 51, 352-359.	3.1	89
76	Amplified Photodegradation of Cellâ€Laden Hydrogels via an Additionâ€"Fragmentation Chain Transfer Reaction. Advanced Materials, 2017, 29, 1605001.	21.0	88
77	On-resin peptide macrocyclization using thiolâ€"ene click chemistry. Chemical Communications, 2010, 46, 4061.	4.1	87
78	Hydrazone covalent adaptable networks modulate extracellular matrix deposition for cartilage tissue engineering. Acta Biomaterialia, 2019, 83, 71-82.	8.3	86
79	Encapsulating chondrocytes in copolymer gels: Bimodal degradation kinetics influence cell phenotype and extracellular matrix development. Journal of Biomedical Materials Research Part B, 2004, 70A, 560-568.	3.1	85
80	Radical concentrations, environments, and reactivities during crosslinking polymerizations. Macromolecular Chemistry and Physics, 1996, 197, 833-848.	2.2	84
81	Cardiac valve cells and their microenvironmentâ€"insights from in vitro studies. Nature Reviews Cardiology, 2014, 11, 715-727.	13.7	80
82	Synthesis and Characterization of Photo-Cross-Linked Polymers Based on Poly(l-lactic) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 Td (aci	4.8	79
83	Strategies to reduce dendritic cell activation through functional biomaterial design. Biomaterials, 2012, 33, 3615-3625.	11.4	79
84	PEGâ€"Anthracene Hydrogels as an Onâ€Demand Stiffening Matrix To Study Mechanobiology. Angewandte Chemie - International Edition, 2019, 58, 9912-9916.	13.8	77
85	Myofibroblastic activation of valvular interstitial cells is modulated by spatial variations in matrix elasticity and its organization. Biomaterials, 2017, 131, 131-144.	11.4	75
86	A Generalized Bulk-Degradation Model for Hydrogel Networks Formed from Multivinyl Cross-linking Molecules. Journal of Physical Chemistry B, 2001, 105, 5131-5138.	2.6	74
87	A Dielsâ€"Alder modulated approach to control and sustain the release of dexamethasone and induce osteogenic differentiation of human mesenchymal stem cells. Biomaterials, 2013, 34, 4150-4158.	11.4	72
88	The role of valvular endothelial cell paracrine signaling and matrix elasticity on valvular interstitial cell activation. Biomaterials, 2014, 35, 3596-3606.	11.4	71
89	Nuclear mechanosensing drives chromatin remodelling in persistently activated fibroblasts. Nature Biomedical Engineering, 2021, 5, 1485-1499.	22.5	71
90	Monitoring degradation of matrix metalloproteinases-cleavable PEG hydrogels via multiple particle tracking microrheology. Soft Matter, 2013, 9, 1570-1579.	2.7	69

#	Article	IF	Citations
91	Modeling of network degradation in mixed step-chain growth polymerizations. Polymer, 2005, 46, 4212-4222.	3.8	66
92	Development and characterization of degradable thiol-allyl ether photopolymers. Polymer, 2007, 48, 4589-4600.	3.8	65
93	Engineering the MSC Secretome: A Hydrogel Focused Approach. Advanced Healthcare Materials, 2021, 10, e2001948.	7.6	65
94	Secondary Photocrosslinking of Click Hydrogels To Probe Myoblast Mechanotransduction in Three Dimensions. Journal of the American Chemical Society, 2018, 140, 11585-11588.	13.7	64
95	Injury-mediated stiffening persistently activates muscle stem cells through YAP and TAZ mechanotransduction. Science Advances, 2021, 7, .	10.3	63
96	Nuclear mechanosensing controls MSC osteogenic potential through HDAC epigenetic remodeling. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21258-21266.	7.1	60
97	Adaptable boronate ester hydrogels with tunable viscoelastic spectra to probe timescale dependent mechanotransduction. Biomaterials, 2019, 223, 119430.	11.4	59
98	Rescuing mesenchymal stem cell regenerative properties on hydrogel substrates post serial expansion. Bioengineering and Translational Medicine, 2019, 4, 51-60.	7.1	58
99	Designing Microgels for Cell Culture and Controlled Assembly of Tissue Microenvironments. Advanced Functional Materials, 2020, 30, 1907670.	14.9	58
100	The Effect of Thiol Structure on Allyl Sulfide Photodegradable Hydrogels and their Application as a Degradable Scaffold for Organoid Passaging. Advanced Materials, 2020, 32, e1905366.	21.0	58
101	Relaxation of Extracellular Matrix Forces Directs Crypt Formation and Architecture in Intestinal Organoids. Advanced Healthcare Materials, 2020, 9, e1901214.	7.6	58
102	3D Photofixation Lithography in Dielsâ€"Alder Networks. Macromolecular Rapid Communications, 2012, 33, 2092-2096.	3.9	57
103	MALDI-TOF Characterization of Highly Cross-Linked, Degradable Polymer Networks. Macromolecules, 1999, 32, 1438-1444.	4.8	55
104	Clickable, Photodegradable Hydrogels to Dynamically Modulate Valvular Interstitial Cell Phenotype. Advanced Healthcare Materials, 2014, 3, 649-657.	7.6	54
105	Multifunctional bioscaffolds for 3D culture of melanoma cells reveal increased MMP activity and migration with BRAF kinase inhibition. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5366-5371.	7.1	52
106	Injectable Carbon Nanotube-Functionalized Reverse Thermal Gel Promotes Cardiomyocytes Survival and Maturation. ACS Applied Materials & Interfaces, 2017, 9, 31645-31656.	8.0	52
107	Manipulation of miRNA activity accelerates osteogenic differentiation of hMSCs in engineered 3D scaffolds. Journal of Tissue Engineering and Regenerative Medicine, 2012, 6, 314-324.	2.7	49
108	Photoregulated Hydrazone-Based Hydrogel Formation for Biochemically Patterning 3D Cellular Microenvironments. ACS Macro Letters, 2016, 5, 19-23.	4.8	49

#	Article	IF	Citations
109	In Situ Control of Cell Substrate Microtopographies Using Photolabile Hydrogels. Small, 2013, 9, 578-584.	10.0	48
110	In vitro model alveoli from photodegradable microsphere templates. Biomaterials Science, 2015, 3, 821-832.	5.4	48
111	Responsive culture platform to examine the influence of microenvironmental geometry on cell function in 3D. Integrative Biology (United Kingdom), 2012, 4, 1540.	1.3	47
112	Gold Nanoparticle-Functionalized Reverse Thermal Gel for Tissue Engineering Applications. ACS Applied Materials & Interfaces, 2019, 11, 18671-18680.	8.0	47
113	Verification of scaling laws for degrading PLA-b-PEG-b-PLA hydrogels. AICHE Journal, 2001, 47, 1432-1437.	3.6	46
114	Synthesis of cyclic, multivalent Arg-Gly-Asp using sequential thiolâ€“ene/thiolâ€“yne photoreactions. Chemical Communications, 2010, 46, 5781.	4.1	43
115	Porous bio-click microgel scaffolds control hMSC interactions and promote their secretory properties. Biomaterials, 2020, 232, 119725.	11.4	43
116	Enhanced user-control of small molecule drug release from a poly(ethylene glycol) hydrogel via azobenzene/cyclodextrin complex tethers. Journal of Materials Chemistry B, 2016, 4, 1035-1039.	5.8	41
117	Transcatheter aortic valve replacements alter circulating serum factors to mediate myofibroblast deactivation. Science Translational Medicine, 2019, 11, .	12.4	41
118	Secreted Factors From Proinflammatory Macrophages Promote an Osteoblast-Like Phenotype in Valvular Interstitial Cells. Arteriosclerosis, Thrombosis, and Vascular Biology, 2020, 40, e296-e308.	2.4	41
119	Matters of the heart: Cellular sex differences. Journal of Molecular and Cellular Cardiology, 2021, 160, 42-55.	1.9	40
120	Dimensionality and Size Scaling of Coordinated Ca2+ Dynamics in MIN6 Î²-cell Clusters. Biophysical Journal, 2014, 106, 299-309.	0.5	39
121	Kinetic gelation predictions of species aggregation in tetrafunctional monomer polymerizations. Journal of Polymer Science, Part B: Polymer Physics, 1995, 33, 1769-1780.	2.1	38
122	Modeling controlled photodegradation in optically thick hydrogels. Journal of Polymer Science Part A, 2013, 51, 1899-1911.	2.3	37
123	Affinity Peptides Protect Transforming Growth Factor Beta During Encapsulation in Poly(ethylene) Tj ETQq1 1 0.784314 rgBT /Overlock	5.4	36
124	Synthesis of Microgel Sensors for Spatial and Temporal Monitoring of Protease Activity. ACS Biomaterials Science and Engineering, 2018, 4, 378-387.	5.2	36
125	Defining the Cardiac Fibroblast Secretome in a Fibrotic Microenvironment. Journal of the American Heart Association, 2020, 9, e017025.	3.7	33
126	Roles of transforming growth factorâ€Î²1 and OBâ€cadherin in porcine cardiac valve myofibroblast differentiation. FASEB Journal, 2014, 28, 4551-4562.	0.5	32

#	Article	IF	Citations
127	Thermal Stabilization of Biologics with Photoresponsive Hydrogels. Biomacromolecules, 2018, 19, 740-747.	5.4	30
128	Dynamic Changes in Material Properties and Degradation of Poly(ethylene glycol)â€"Hydrazone Gels as a Function of pH. Macromolecules, 2017, 50, 7351-7360.	4.8	29
129	Genes That Escape X Chromosome Inactivation Modulate Sex Differences in Valve Myofibroblasts. Circulation, 2022, 145, 513-530.	1.6	28
130	Programming hydrogels to probe spatiotemporal cell biology. Cell Stem Cell, 2022, 29, 678-691.	11.1	28
131	FGF-2 inhibits contractile properties of valvular interstitial cell myofibroblasts encapsulated in 3D MMP-degradable hydrogels. APL Bioengineering, 2018, 2, 046104.	6.2	27
132	CELLâ€"MATERIAL INTERACTIONS. Advances in Chemical Engineering, 2004, 29, 7-46.	0.9	26
133	Three-dimensional encapsulation of adult mouse cardiomyocytes in hydrogels with tunable stiffness. Progress in Biophysics and Molecular Biology, 2020, 154, 71-79.	2.9	26
134	Photopolymerization of Novel Degradable Networks for Orthopedic Applications. ACS Symposium Series, 1997, , 189-202.	0.5	24
135	Photo-induced viscoelasticity in cytocompatible hydrogel substrates. New Journal of Physics, 2019, 21, 045004.	2.9	24
136	Phototunable Viscoelasticity in Hydrogels Through Thioester Exchange. Annals of Biomedical Engineering, 2020, 48, 2053-2063.	2.5	22
137	4D Printing of Extrudable and Degradable Poly(Ethylene Glycol) Microgel Scaffolds for Multidimensional Cell Culture. Small, 2022, 18, .	10.0	22
138	Bioorthogonal click chemistries enable simultaneous spatial patterning of multiple proteins to probe synergistic protein effects on fibroblast function. Biomaterials, 2020, 255, 120205.	11.4	21
139	3D printing of sacrificial thioester elastomers using digital light processing for templating 3D organoid structures in soft biomatrices. Biofabrication, 2021, 13, 044104.	7.1	21
140	Cardiac Fibroblasts Mediate a Sexually Dimorphic Fibrotic Response to Î²â€Adrenergic Stimulation. Journal of the American Heart Association, 2021, 10, e018876.	3.7	20
141	PEGâ€"Anthracene Hydrogels as an Onâ€Demand Stiffening Matrix To Study Mechanobiology. Angewandte Chemie, 2019, 131, 10017-10021.	2.0	19
142	Calcium Signaling Regulates Valvular Interstitial Cell Alignment and Myofibroblast Activation in Fastâ€Relaxing Boronate Hydrogels. Macromolecular Bioscience, 2020, 20, e2000268.	4.1	19
143	Mesenchymal stem <scp>cellâ€inspired</scp> microgel scaffolds to control macrophage polarization. Bioengineering and Translational Medicine, 2021, 6, e10217.	7.1	18
144	Thiolâ€ene Hydrogels for Local Delivery of PTH for Bone Regeneration in Critical Size defects. Journal of Orthopaedic Research, 2020, 38, 536-544.	2.3	16

#	Article	IF	Citations
145	Charged Poly(<i>N</i>-isopropylacrylamide) Nanogels for the Stabilization of High Isoelectric Point Proteins. ACS Biomaterials Science and Engineering, 2021, 7, 4282-4292.	5.2	16
146	Mechanobiological Interactions between Dynamic Compressive Loading and Viscoelasticity on Chondrocytes in Hydrazone Covalent Adaptable Networks for Cartilage Tissue Engineering. Advanced Healthcare Materials, 2021, 10, e2002030.	7.6	16
147	Repair of a Calvarial Defect With Biofactor and Stem Cellâ€“Embedded Polyethylene Glycol Scaffold. Archives of Facial Plastic Surgery, 2010, 12, 166-171.	0.7	16
148	Controlled Degradation of Cast and 3-D Printed Photocurable Thioester Networks via Thiolâ€“Thioester Exchange. Macromolecules, 2022, 55, 1376-1385.	4.8	16
149	In Situ Superâ€Resolution Imaging of Organoids and Extracellular Matrix Interactions via Phototransfer by Allyl Sulfide Exchangeâ€Expansion Microscopy (PhASEâ€ExM). Advanced Materials, 2022, 34, e2109252.	21.0	16
150	Viscoelasticity of hydrazone crosslinked poly(ethylene glycol) hydrogels directs chondrocyte morphology during mechanical deformation. Biomaterials Science, 2020, 8, 3804-3811.	5.4	15
151	Network modeling predicts personalized gene expression and drug responses in valve myofibroblasts cultured with patient sera. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	15
152	Microstructural evolution in polymerizations of tetrafunctional monomers. Macromolecular Symposia, 1995, 93, 269-276.	0.7	14
153	Myoblast mechanotransduction and myotube morphology is dependent on BAG3 regulation of YAP and TAZ. Biomaterials, 2021, 277, 121097.	11.4	12
154	Prothymosin Alpha: A Novel Contributor to Estradiol Receptor Alphaâ€“Mediated CD8 ⁺ T-Cell Pathogenic Responses and Recognition of Type 1 Collagen in Rheumatic Heart Valve Disease. Circulation, 2022, 145, 531-548.	1.6	12
155	Stress Relaxation and Composition of Hydrazoneâ€Crosslinked Hybrid Biopolymerâ€Synthetic Hydrogels Determine Spreading and Secretory Properties of MSCs. Advanced Healthcare Materials, 2022, 11, e2200393.	7.6	11
156	Polymers at the Interface with Biology. Biomacromolecules, 2018, 19, 3151-3162.	5.4	10
157	Kinetic Analysis of Degradation in Thioester Cross-linked Hydrogels as a Function of Thiol Concentration, p<i>K</i>_a, and Presentation. Macromolecules, 2022, 55, 2123-2129.	4.8	10
158	Granular PEG hydrogels mediate osteoporotic MSC clustering via N-cadherin influencing the pro-resorptive bias of their secretory profile. Acta Biomaterialia, 2022, 145, 77-87.	8.3	9
159	Intracellular Crowding by Bioâ€Orthogonal Hydrogel Formation Induces Reversible Molecular Stasis. Advanced Materials, 2022, 34, .	21.0	8
160	Degradable and Resorbable Polymers. , 2020, , 167-190.		7
161	Bioerodible Hydrogels Based on Photopolymerized Poly(ethylene glycol)-<i>co</i>-poly(Î±-hydroxy acid) Diacrylate Macromers. Macromolecules, 2020, 53, 2295-2298.	4.8	7
162	4D Materials with Photoadaptable Properties Instruct and Enhance Intestinal Organoid Development. ACS Biomaterials Science and Engineering, 2022, 8, 4634-4638.	5.2	7

#	Article	IF	Citations
163	Bioapplications of Networks Based on Photoâ€Crossâ€Linked Hyperbranched Polymers. Macromolecular Symposia, 2010, 291-292, 307-313.	0.7	6
164	Hydrogel cultures reveal Transient Receptor Potential Vanilloid 4 regulation of myofibroblast activation and proliferation in valvular interstitial cells. FASEB Journal, 2022, 36, e22306.	0.5	6
165	Synthesis, selective decoration and photocrosslinking of <scp>selfâ€immolative</scp> poly(thioester)â€PEG hydrogels. Polymer International, 2022, 71, 906-911.	3.1	5
166	Surface and bulk modifications to photocrosslinked polyanhydrides to control degradation behavior. Journal of Biomedical Materials Research Part B, 2000, 51, 352-359.	3.1	2
167	Impact of Collagen Triple Helix Structure on Melanoma Cell Invadopodia Formation and Matrix Degradation upon BRAF Inhibitor Treatment. Advanced Healthcare Materials, 2022, 11, e2101592.	7.6	2
168	Osteopontin activity modulates sexâ€specific calcification in engineered valve tissue mimics. Bioengineering and Translational Medicine, 2023, 8, .	7.1	2
169	UVâ€"Visible Spectroscopy To Determine Free-Volume Distributions During Multifunctional Monomer Polymerizations. ACS Symposium Series, 1995, , 166-182.	0.5	1
170	Cogelation of Hydrolyzable Cross-Linkers and Poly(ethylene oxide) Dimethacrylate and Their Use as Controlled Release Vehicles. ACS Symposium Series, 1999, , 1-13.	0.5	1
171	Structural Evolution of Highly Crosslinked Polymer Networks. Materials Research Society Symposia Proceedings, 1994, 355, 619.	0.1	0
172	Structural Evolution of Highly Crosslinked Polymer Networks. Materials Research Society Symposia Proceedings, 1994, 355, 65.	0.1	0