Feng Xu

List of Publications by Year
in descending order

263	14,991	13854	24232
papers	citations	67 h-index	110 g-index

272	272	272	18880
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Advances in paper-based point-of-care diagnostics. Biosensors and Bioelectronics, 2014, 54, 585-597.	5.3	826
2	Functional and Biomimetic Materials for Engineering of the Three-Dimensional Cell Microenvironment. Chemical Reviews, 2017, 117, 12764-12850.	23.0	582
3	4D Bioprinting for Biomedical Applications. Trends in Biotechnology, 2016, 34, 746-756.	4.9	529
4	Novel Biocompatible Polysaccharideâ€Based Selfâ€Healing Hydrogel. Advanced Functional Materials, 2015, 25, 1352-1359.	7.8	526
5	Upconversion nanoparticles based FRET aptasensor for rapid and ultrasenstive bacteria detection. Biosensors and Bioelectronics, 2017, 90, 525-533.	5.3	263
6	Household Fluorescent Lateral Flow Strip Platform for Sensitive and Quantitative Prognosis of Heart Failure Using Dual-Color Upconversion Nanoparticles. ACS Nano, 2017, 11, 6261-6270.	7.3	262
7	An integrated paper-based sample-to-answer biosensor for nucleic acid testing at the point of care. Lab on A Chip, 2016, 16, 611-621.	3.1	247
8	Recent advances of controlled drug delivery using microfluidic platforms. Advanced Drug Delivery Reviews, 2018, 128, 3-28.	6.6	241
9	Engineering cell alignment in vitro. Biotechnology Advances, 2014, 32, 347-365.	6.0	220
10	Threeâ€Dimensional Magnetic Assembly of Microscale Hydrogels. Advanced Materials, 2011, 23, 4254-4260.	11.1	213
11	Advances in digital polymerase chain reaction (dPCR) and its emerging biomedical applications. Biosensors and Bioelectronics, 2017, 90, 459-474.	5.3	209
12	Three-dimensional quick response code based on inkjet printing of upconversion fluorescent nanoparticles for drug anti-counterfeiting. Nanoscale, 2016, 8, 10096-10104.	2.8	205
13	Bioactuators based on stimulus-responsive hydrogels and their emerging biomedical applications. NPG Asia Materials, 2019, 11, .	3.8	202
14	A fully disposable and integrated paper-based device for nucleic acid extraction, amplification and detection. Lab on A Chip, 2017, 17, 1270-1279.	3.1	169
15	3D Spatiotemporal Mechanical Microenvironment: A Hydrogelâ€Based Platform for Guiding Stem Cell Fate. Advanced Materials, 2018, 30, e1705911.	11.1	162
16	Recent Advances in Electrospun Nanofibrous Scaffolds for Cardiac Tissue Engineering. Advanced Functional Materials, 2015, 25, 5726-5738.	7.8	159
17	Engineering a Brain Cancer Chip for High-throughput Drug Screening. Scientific Reports, 2016, 6, 25062.	1.6	157
18	The Role of Nanoparticle Design in Determining Analytical Performance of Lateral Flow Immunoassays. Nano Letters, 2017, 17, 7207-7212.	4.5	149

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19	Biofriendly, Stretchable, and Reusable Hydrogel Electronics as Wearable Force Sensors. Small, 2018, 14, e1801711.	5.2	144
20	High-yield synthesis of strong photoluminescent N-doped carbon nanodots derived from hydrosoluble chitosan for mercury ion sensing via smartphone APP. Biosensors and Bioelectronics, 2016, 79, 1-8.	5.3	143
21	Hydrosoluble, UV-crosslinkable and injectable chitosan for patterned cell-laden microgel and rapid transdermal curing hydrogel in vivo. Acta Biomaterialia, 2015, 22, 59-69.	4.1	139
22	Paper-based point-of-care immunoassays: Recent advances and emerging trends. Biotechnology Advances, 2020, 39, 107442.	6.0	139
23	A Hydrogel Microneedle Patch for Pointâ€ofâ€Care Testing Based on Skin Interstitial Fluid. Advanced Healthcare Materials, 2020, 9, e1901201.	3.9	138
24	Exosomes secreted by stem cells from human exfoliated deciduous teeth contribute to functional recovery after traumatic brain injury by shifting microglia M1/M2 polarization in rats. Stem Cell Research and Therapy, 2017, 8, 198.	2.4	137
25	Portable microfluidic and smartphone-based devices for monitoring of cardiovascular diseases at the point of care. Biotechnology Advances, 2016, 34, 305-320.	6.0	128
26	Paper: A promising material for human-friendly functional wearable electronics. Materials Science and Engineering Reports, 2017, 112, 1-22.	14.8	128
27	The assembly of cell-encapsulating microscale hydrogels using acoustic waves. Biomaterials, 2011, 32, 7847-7855.	5.7	123
28	A programmable polymer library that enables the construction of stimuli-responsive nanocarriers containing logic gates. Nature Chemistry, 2020, 12, 381-390.	6.6	122
29	Low-cost bioanalysis on paper-based and its hybrid microfluidic platforms. Talanta, 2015, 145, 43-54.	2.9	121
30	Recent advances in microfluidic platforms for single-cell analysis in cancer biology, diagnosis and therapy. TrAC - Trends in Analytical Chemistry, 2019, 117, 13-26.	5.8	121
31	Vitrification and levitation of a liquid droplet on liquid nitrogen. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4596-4600.	3.3	120
32	Paper-based sample-to-answer molecular diagnostic platform for point-of-care diagnostics. Biosensors and Bioelectronics, 2015, 74, 427-439.	5.3	120
33	Magnetically Actuated Droplet Manipulation and Its Potential Biomedical Applications. ACS Applied Materials & Interfaces, 2017, 9, 1155-1166.	4.0	119
34	Liquid Bandage Harvests Robust Adhesive, Hemostatic, and Antibacterial Performances as a Firstâ€Aid Tissue Adhesive. Advanced Functional Materials, 2020, 30, 2001820.	7.8	118
35	Lateral flow aptamer assay integrated smartphone-based portable device for simultaneous detection of multiple targets using upconversion nanoparticles. Sensors and Actuators B: Chemical, 2018, 276, 48-56.	4.0	112
36	Advances in fabricating double-emulsion droplets and their biomedical applications. Microfluidics and Nanofluidics, 2015, 19, 1071-1090.	1.0	110

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37	Multiplexed instrument-free meningitis diagnosis on a polymer/paper hybrid microfluidic biochip. Biosensors and Bioelectronics, 2017, 87, 865-873.	5.3	110
38	Paper-based cell culture platform and its emerging biomedical applications. Materials Today, 2017, 20, 32-44.	8.3	105
39	Recent Advances in 4D Bioprinting. Biotechnology Journal, 2020, 15, e1900086.	1.8	105
40	A portable and universal upconversion nanoparticle-based lateral flow assay platform for point-of-care testing. Talanta, 2019, 201, 126-133.	2.9	104
41	Engineering the Surface of Smart Nanocarriers Using a pHâ€Thermalâ€GSHâ€Responsive Polymer Zipper for Precise Tumor Targeting Therapy In Vivo. Advanced Materials, 2017, 29, 1702311.	11.1	102
42	Multiplexed Instrument-Free Bar-Chart SpinChip Integrated with Nanoparticle-Mediated Magnetic Aptasensors for Visual Quantitative Detection of Multiple Pathogens. Analytical Chemistry, 2018, 90, 9888-9896.	3.2	101
43	Stem cell culture and differentiation in microfluidic devices toward organ-on-a-chip. Future Science OA, 2017, 3, FSO187.	0.9	97
44	Ultrafast Photonic PCR Based on Photothermal Nanomaterials. Trends in Biotechnology, 2020, 38, 637-649.	4.9	96
45	Polydimethylsiloxane-Paper Hybrid Lateral Flow Assay for Highly Sensitive Point-of-Care Nucleic Acid Testing. Analytical Chemistry, 2016, 88, 6254-6264.	3.2	93
46	Electrospun three-dimensional aligned nanofibrous scaffolds for tissue engineering. Materials Science and Engineering C, 2018, 92, 995-1005.	3.8	91
47	Visual inÂvivo degradation of injectable hydrogel by real-time and non-invasive tracking using carbon nanodots as fluorescent indicator. Biomaterials, 2017, 145, 192-206.	5.7	89
48	Reduced graphene oxide functionalized nanofibrous silk fibroin matrices for engineering excitable tissues. NPG Asia Materials, 2018, 10, 982-994.	3.8	88
49	Recent advances in siRNA delivery for cancer therapy using smart nanocarriers. Drug Discovery Today, 2018, 23, 900-911.	3.2	87
50	Tough Magnetic Chitosan Hydrogel Nanocomposites for Remotely Stimulated Drug Release. Biomacromolecules, 2018, 19, 3351-3360.	2.6	87
51	Near-infrared light-regulated cancer theranostic nanoplatform based on aggregation-induced emission luminogen encapsulated upconversion nanoparticles. Theranostics, 2019, 9, 246-264.	4.6	85
52	Recent Advances in Penâ€Based Writing Electronics and their Emerging Applications. Advanced Functional Materials, 2016, 26, 165-180.	7.8	84
53	Fully integrated microfluidic devices for qualitative, quantitative and digital nucleic acids testing at point of care. Biosensors and Bioelectronics, 2021, 177, 112952.	5.3	84
54	A review on advances in methods for modification of paper supports for use in point-of-care testing. Mikrochimica Acta, 2019, 186, 521.	2.5	82

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55	Graphene-enabled wearable sensors for healthcare monitoring. Biosensors and Bioelectronics, 2022, 197, 113777.	5.3	82
56	Phenotypic and Functional Characterization of Long-Term Cryopreserved Human Adipose-derived Stem Cells. Scientific Reports, 2015, 5, 9596.	1.6	81
57	An integrated lateral flow assay for effective DNA amplification and detection at the point of care. Analyst, The, 2016, 141, 2930-2939.	1.7	80
58	Lateral Flow Assay Based on Paperâ€“Hydrogel Hybrid Material for Sensitive Pointâ€ofâ€Care Detection of Dengue Virus. Advanced Healthcare Materials, 2017, 6, 1600920.	3.9	80
59	Viscoelastic Cell Microenvironment: Hydrogelâ€Based Strategy for Recapitulating Dynamic ECM Mechanics. Advanced Functional Materials, 2021, 31, 2100848.	7.8	80
60	Improved sensitivity of lateral flow assay using paper-based sample concentration technique. Talanta, 2016, 152, 269-276.	2.9	79
61	Advances in paper-based sample pretreatment for point-of-care testing. Critical Reviews in Biotechnology, 2017, 37, 411-428.	5.1	76
62	Perspective: Fabrication of integrated organ-on-a-chip via bioprinting. Biomicrofluidics, 2017, 11, 031301.	1.2	76
63	Dextran-based hydrogel formed by thiol-Michael addition reaction for 3D cell encapsulation. Colloids and Surfaces B: Biointerfaces, 2015, 128, 140-148.	2.5	75
64	Sensitive biomolecule detection in lateral flow assay with a portable temperatureâ€“humidity control device. Biosensors and Bioelectronics, 2016, 79, 98-107.	5.3	75
65	Pen-on-paper strategy for point-of-care testing: Rapid prototyping of fully written microfluidic biosensor. Biosensors and Bioelectronics, 2017, 98, 478-485.	5.3	75
66	Materials with Tunable Optical Properties for Wearable Epidermal Sensing in Health Monitoring. Advanced Materials, 2022, 34, e2109055.	11.1	74
67	Improved Analytical Sensitivity of Lateral Flow Assay using Sponge for HBV Nucleic Acid Detection. Scientific Reports, 2017, 7, 1360.	1.6	73
68	Advances and challenges of fully integrated paper-based point-of-care nucleic acid testing. TrAC - Trends in Analytical Chemistry, 2017, 93, 37-50.	5.8	72
69	Theranostics of Triple-Negative Breast Cancer Based on Conjugated Polymer Nanoparticles. ACS Applied Materials & Interfaces, 2018, 10, 10634-10646.	4.0	72
70	Spatially modulated stiffness on hydrogels for soft and stretchable integrated electronics. Materials Horizons, 2020, 7, 203-213.	6.4	70
71	Environmentally Compatible Wearable Electronics Based on Ionically Conductive Organohydrogels for Health Monitoring with Thermal Compatibility, Antiâ€Dehydration, and Underwater Adhesion. Small, 2021, 17, e2101151.	5.2	70
72	Nanoscale integrin cluster dynamics controls cellular mechanosensing via FAKY397 phosphorylation. Science Advances, 2020, 6, eaax1909.	4.7	69

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73	Cellular mechanosensing of the biophysical microenvironment: A review of mathematical models of biophysical regulation of cell responses. Physics of Life Reviews, 2017, 22-23, 88-119.	1.5	67
74	Smart Glove Integrated with Tunable MWNTs/PDMS Fibers Made of a One-Step Extrusion Method for Finger Dexterity, Gesture, and Temperature Recognition. ACS Applied Materials & Interfaces, 2020, 12, 23764-23773.	4.0	67
75	UV-crosslinkable and thermo-responsive chitosan hybrid hydrogel for NIR-triggered localized on-demand drug delivery. Carbohydrate Polymers, 2017, 174, 904-914.	5.1	66
76	A Colorimetric Dermal Tattoo Biosensor Fabricated by Microneedle Patch for Multiplexed Detection of Healthâ€Related Biomarkers. Advanced Science, 2021, 8, e2103030.	5.6	65
77	Facial Layer-by-Layer Engineering of Upconversion Nanoparticles for Gene Delivery: Near-Infrared-Initiated Fluorescence Resonance Energy Transfer Tracking and Overcoming Drug Resistance in Ovarian Cancer. ACS Applied Materials & Interfaces, 2017, 9, 7941-7949.	4.0	64
78	Heterostructured Silk-Nanofiber-Reduced Graphene Oxide Composite Scaffold for SH-SY5Y Cell Alignment and Differentiation. ACS Applied Materials & Interfaces, 2018, 10, 39228-39237.	4.0	64
79	Recent innovations in cost-effective polymer and paper hybrid microfluidic devices. Lab on A Chip, 2021, 21, 2658-2683.	3.1	62
80	A stretchable, conformable, and biocompatible graphene strain sensor based on a structured hydrogel for clinical application. Journal of Materials Chemistry A, 2019, 7, 27099-27109.	5.2	61
81	Cryopreservation of Human Mesenchymal Stem Cells for Clinical Applications: Current Methods and Challenges. Biopreservation and Biobanking, 2015, 13, 231-239.	0.5	60
82	Microchannel Stiffness and Confinement Jointly Induce the Mesenchymal-Amoeboid Transition of Cancer Cell Migration. Nano Letters, 2019, 19, 5949-5958.	4.5	60
83	Harnessing the wide-range strain sensitivity of bilayered PEDOT:PSS films for wearable health monitoring. Matter, 2021, 4, 2886-2901.	5.0	59
84	Mechanoregulation of cardiac myofibroblast differentiation: implications for cardiac fibrosis and therapy. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H532-H542.	1.5	58
85	Eriodictyol inhibits high glucoseâ€induced oxidative stress and inflammation in retinal ganglial cells. Journal of Cellular Biochemistry, 2019, 120, 5644-5651.	1.2	57
86	Chineseâ€Noodleâ€Inspired Muscle Myofiber Fabrication. Advanced Functional Materials, 2015, 25, 5999-6008.	7.8	56
87	In Situ Normoxia Enhances Survival and Proliferation Rate of Human Adipose Tissue-Derived Stromal Cells without Increasing the Risk of Tumourigenesis. PLoS ONE, 2015, 10, e0115034.	1.1	56
88	Solvent-Free Fabrication of Carbon Nanotube/Silk Fibroin Electrospun Matrices for Enhancing Cardiomyocyte Functionalities. ACS Biomaterials Science and Engineering, 2020, 6, 1630-1640.	2.6	56
89	The Arabidopsis trichome is an active mechanosensory switch. Plant, Cell and Environment, 2017, 40, 611-621.	2.8	54
90	Point-of-Care Periodontitis Testing: Biomarkers, Current Technologies, and Perspectives. Trends in Biotechnology, 2018, 36, 1127-1144.	4.9	54

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91	Engineering physical microenvironment for stem cell based regenerative medicine. Drug Discovery Today, 2014, 19, 763-773.	3.2	53
92	Spatiotemporally Controlled Photoresponsive Hydrogels: Design and Predictive Modeling from Processing through Application. Advanced Functional Materials, 2020, 30, 2000639.	7.8	51
93	Aligned Graphene Mesh-Supported Double Network Natural Hydrogel Conduit Loaded with Netrin-1 for Peripheral Nerve Regeneration. ACS Applied Materials & Interfaces, 2021, 13, 112-122.	4.0	51
94	Multiple test zones for improved detection performance in lateral flow assays. Sensors and Actuators B: Chemical, 2017, 243, 484-488.	4.0	50
95	The potential health challenges of TiO₂ nanomaterials. Journal of Applied Toxicology, 2015, 35, 1086-1101.	1.4	49
96	Magnetically actuated cell-laden microscale hydrogels for probing strain-induced cell responses in three dimensions. NPG Asia Materials, 2016, 8, e238-e238.	3.8	49
97	Polymeric Nitric Oxide Delivery Nanoplatforms for Treating Cancer, Cardiovascular Diseases, and Infection. Advanced Healthcare Materials, 2021, 10, e2001550.	3.9	49
98	Engineering the Cell Microenvironment Using Novel Photoresponsive Hydrogels. ACS Applied Materials & Interfaces, 2018, 10, 12374-12389.	4.0	48
99	Equipmentâ€Free Quantitative Readout in Paperâ€Based Pointâ€ofâ€Care Testing. Small Methods, 2020, 4, 1900459.	4.6	48
100	Pen-on-paper strategies for point-of-care testing of human health. TrAC - Trends in Analytical Chemistry, 2018, 108, 50-64.	5.8	47
101	Paracrine Effects of Adipose-Derived Stem Cells on Matrix Stiffness-Induced Cardiac Myofibroblast Differentiation via Angiotensin II Type 1 Receptor and Smad7. Scientific Reports, 2016, 6, 33067.	1.6	46
102	Labeling and long-term tracking of bone marrow mesenchymal stem cells in vitro using NaYF4:Yb3+,Er3+ upconversion nanoparticles. Acta Biomaterialia, 2016, 42, 199-208.	4.1	46
103	Paper-based device with on-chip reagent storage for rapid extraction of DNA from biological samples. Mikrochimica Acta, 2017, 184, 2141-2150.	2.5	45
104	A Controllable and Integrated Pump-enabled Microfluidic Chip and Its Application in Droplets Generating. Scientific Reports, 2017, 7, 11319.	1.6	42
105	Improved LFIAs for highly sensitive detection of BNP at point-of-care. International Journal of Nanomedicine, 2017, Volume 12, 4455-4466.	3.3	40
106	Anisotropic conductive reduced graphene oxide/silk matrices promote post-infarction myocardial function by restoring electrical integrity. Acta Biomaterialia, 2022, 139, 190-203.	4.1	40
107	Mechanics-driven nuclear localization of YAP can be reversed by N-cadherin ligation in mesenchymal stem cells. Nature Communications, 2021, 12, 6229.	5.8	40
108	Hydrogel-based methods for engineering cellular microenvironment with spatiotemporal gradients. Critical Reviews in Biotechnology, 2016, 36, 1-13.	5.1	39

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109	Capillary blood for point-of-care testing. Critical Reviews in Clinical Laboratory Sciences, 2017, 54, 294-308.	2.7	39
110	Simultaneous arteriole and venule segmentation with domain-specific loss function on a new public database. Biomedical Optics Express, 2018, 9, 3153.	1.5	39
111	Controlled Drug Delivery Using Microdevices. Current Pharmaceutical Biotechnology, 2016, 17, 772-787.	0.9	39
112	Smartphone-Based Accurate Analysis of Retinal Vasculature towards Point-of-Care Diagnostics. Scientific Reports, 2016, 6, 34603.	1.6	38
113	Non-invasive tracking of hydrogel degradation using upconversion nanoparticles. Acta Biomaterialia, 2017, 55, 410-419.	4.1	38
114	Magnetic steering of liquid metal mobiles. Soft Matter, 2018, 14, 3236-3245.	1.2	37
115	Flexible Miniaturized Sensor Technologies for Long-Term Physiological Monitoring. Npj Flexible Electronics, 2022, 6, .	5.1	35
116	Targeting the tumor biophysical microenvironment to reduce resistance to immunotherapy. Advanced Drug Delivery Reviews, 2022, 186, 114319.	6.6	35
117	Coarse-grained molecular dynamics studies of the translocation mechanism of polyarginines across asymmetric membrane under tension. Scientific Reports, 2015, 5, 12808.	1.6	34
118	BioPen: direct writing of functional materials at the point of care. Scientific Reports, 2014, 4, 4872.	1.6	34
119	Capillary Origami Inspired Fabrication of Complex 3D Hydrogel Constructs. Small, 2016, 12, 4492-4500.	5.2	34
120	Regulation of Cell Behavior by Hydrostatic Pressure. Applied Mechanics Reviews, 2019, 71, 0408031-4080313.	4.5	34
121	Microstructural effects on permeability of Nitrocellulose membranes for biomedical applications. Journal of Membrane Science, 2020, 595, 117502.	4.1	34
122	A Portable Digital Loop-Mediated Isothermal Amplification Platform Based on Microgel Array and Hand-Held Reader. ACS Sensors, 2021, 6, 3564-3574.	4.0	34
123	Matrix stiffness changes affect astrocyte phenotype in an in vitro injury model. NPG Asia Materials, 2021, 13, .	3.8	32
124	Ultrahigh-yield synthesis of N-doped carbon nanodots that down-regulate ROS in zebrafish. Journal of Materials Chemistry B, 2017, 5, 7848-7860.	2.9	31
125	Liquid wicking behavior in paper-like materials: mathematical models and their emerging biomedical applications. Microfluidics and Nanofluidics, 2018, 22, 1.	1.0	31
126	Microfluidic Printing of Three-Dimensional Graphene Electroactive Microfibrous Scaffolds. ACS Applied Materials & Interfaces, 2020, 12, 2049-2058.	4.0	31

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127	An approach to quantifying 3D responses of cells to extreme strain. Scientific Reports, 2016, 6, 19550.	1.6	30
128	An Integrated Stochastic Model of Matrix-Stiffness-Dependent Filopodial Dynamics. Biophysical Journal, 2016, 111, 2051-2061.	0.2	30
129	The elastic fields of a compressible liquid inclusion. Extreme Mechanics Letters, 2018, 22, 122-130.	2.0	30
130	Improved Resolution and Fidelity of Droplet-Based Bioprinting by Upward Ejection. ACS Biomaterials Science and Engineering, 2019, 5, 4112-4121.	2.6	30
131	Blood Banking in Living Droplets. PLoS ONE, 2011, 6, e17530.	1.1	30
132	Sensitivity Enhancement of Nucleic Acid Lateral Flow Assays through a Physicalâ€“Chemical Coupling Method: Dissoluble Saline Barriers. ACS Sensors, 2019, 4, 1691-1700.	4.0	29
133	A new method to amplify colorimetric signals of paper-based nanobiosensors for simple and sensitive pancreatic cancer biomarker detection. Analyst, The, 2020, 145, 5113-5117.	1.7	29
134	Electrohydrodynamic Rayleigh-Taylor instability in leaky dielectric fluids. International Journal of Heat and Mass Transfer, 2017, 109, 690-704.	2.5	28
135	Matrix stiffness controls cardiac fibroblast activation through regulating YAP via AT₁R. Journal of Cellular Physiology, 2020, 235, 8345-8357.	2.0	28
136	Liquid on Paper: Rapid Prototyping of Soft Functional Components for Paper Electronics. Scientific Reports, 2015, 5, 11488.	1.6	27
137	Selective enhancement of red emission from upconversion nanoparticles via surface plasmon-coupled emission. RSC Advances, 2015, 5, 76825-76835.	1.7	27
138	Superâ€resolution imaging reveals changes in Escherichia coli SSB localization in response to DNA damage. Genes To Cells, 2019, 24, 814-826.	0.5	27
139	Key considerations on the development of biodegradable biomaterials for clinical translation of medical devices: With cartilage repair products as an example. Bioactive Materials, 2022, 9, 332-342.	8.6	27
140	High-Throughput Non-Contact Vitrification of Cell-Laden Droplets Based on Cell Printing. Scientific Reports, 2015, 5, 17928.	1.6	26
141	Fabrication of Microscale Hydrogels with Tailored Microstructures based on Liquid Bridge Phenomenon. ACS Applied Materials & Interfaces, 2015, 7, 11134-11140.	4.0	26
142	Paper-based point-of-care testing for diagnosis of dengue infections. Critical Reviews in Biotechnology, 2017, 37, 100-111.	5.1	26
143	Nanomaterial-based biosensors for measurement of lipids and lipoproteins towards point-of-care of cardiovascular disease. Analyst, The, 2017, 142, 3309-3321.	1.7	26
144	Trichomes as a natural biophysical barrier for plants and their bioinspired applications. Soft Matter, 2017, 13, 5096-5106.	1.2	25

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145	Renewable epoxidized cardanolâ€based acrylate as a reactive diluent for UVâ€curable resins. Polymers for Advanced Technologies, 2018, 29, 1852-1860.	1.6	25
146	Synergistic Effect of Matrix Stiffness and Inflammatory Factors on Osteogenic Differentiation of MSC. Biophysical Journal, 2019, 117, 129-142.	0.2	25
147	In vitrospatially organizing the differentiation in individual multicellular stem cell aggregates. Critical Reviews in Biotechnology, 2016, 36, 20-31.	5.1	24
148	A smartphoneâ€based onâ€site nucleic acid testing platform at pointâ€ofâ€care settings. Electrophoresis, 2019, 40, 914-921.	1.3	24
149	A 3D, Magnetically Actuated, Aligned Collagen Fiber Hydrogel Platform Recapitulates Physical Microenvironment of Myoblasts for Enhancing Myogenesis. Small Methods, 2021, 5, e2100276.	4.6	24
150	Ultrarapid Inductive Rewarming of Vitrified Biomaterials with Thin Metal Forms. Annals of Biomedical Engineering, 2018, 46, 1857-1869.	1.3	23
151	Engineering extracellular matrix to improve drug delivery for cancer therapy. Drug Discovery Today, 2020, 25, 1727-1734.	3.2	23
152	Direct intercellular communications dominate the interaction between adipose-derived MSCs and myofibroblasts against cardiac fibrosis. Protein and Cell, 2015, 6, 735-745.	4.8	22
153	The effect of report particle properties on lateral flow assays: A mathematical model. Sensors and Actuators B: Chemical, 2017, 248, 699-707.	4.0	22
154	Cell mechanical microenvironment for cell volume regulation. Journal of Cellular Physiology, 2020, 235, 4070-4081.	2.0	22
155	Assessment of tumourigenic potential in long-term cryopreserved human adipose-derived stem cells. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 2217-2226.	1.3	21
156	Engineering Biomaterials and Approaches for Mechanical Stretching of Cells in Three Dimensions. Frontiers in Bioengineering and Biotechnology, 2020, 8, 589590.	2.0	21
157	Gradient Mechanical Properties Facilitate Arabidopsis Trichome as Mechanosensor. ACS Applied Materials & Interfaces, 2016, 8, 9755-9761.	4.0	20
158	The effect of substrate stiffness on cancer cell volume homeostasis. Journal of Cellular Physiology, 2018, 233, 1414-1423.	2.0	20
159	Plasmon-Driven Ultrafast Photonic PCR. Trends in Biochemical Sciences, 2020, 45, 174-175.	3.7	20
160	Effect of three-dimensional ECM stiffness on cancer cell migration through regulating cell volume homeostasis. Biochemical and Biophysical Research Communications, 2020, 528, 459-465.	1.0	20
161	Control of fibroblast shape in sequentially formed 3D hybrid hydrogels regulates cellular responses to microenvironmental cues. NPG Asia Materials, 2020, 12, .	3.8	20
162	In Vitro Platelet Adhesion of PNaAMPS/PAAm and PNaAMPS/PDMAAm Doubleâ€Network Hydrogels. Macromolecular Chemistry and Physics, 2015, 216, 641-649.	1.1	19

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163	Graphene-based field effect transistor in two-dimensional paper networks. Analytica Chimica Acta, 2016, 917, 101-106.	2.6	19
164	Engineering mechanical microenvironment of macrophage and its biomedical applications. Nanomedicine, 2018, 13, 555-576.	1.7	19
165	Automated quantification of superficial retinal capillaries and large vessels for diabetic retinopathy on optical coherence tomographic angiography. Journal of Biophotonics, 2019, 12, e201900103.	1.1	19
166	Numerical analysis of the Rayleighâ€“Taylor instability in an electric field. Journal of Fluid Mechanics, 2016, 792, 397-434.	1.4	18
167	Collective Wetting of a Natural Fibrous System and Its Application in Pumpâ€Free Droplet Transfer. Advanced Functional Materials, 2017, 27, 1606607.	7.8	18
168	3D Conformal Modification of Electrospun Silk Nanofibers with Nanoscaled ZnO Deposition for Enhanced Photocatalytic Activity. ACS Biomaterials Science and Engineering, 2017, 3, 2900-2906.	2.6	18
169	Characterizing poroelasticity of biological tissues by spherical indentation: An improved theory for large relaxation. Journal of the Mechanics and Physics of Solids, 2020, 138, 103920.	2.3	18
170	A volumetric meter chip for point-of-care quantitative detection of bovine catalase for food safety control. Analytica Chimica Acta, 2016, 935, 207-212.	2.6	17
171	Engineering of microscale three-dimensional pancreatic islet modelsin vitroand their biomedical applications. Critical Reviews in Biotechnology, 2016, 36, 619-629.	5.1	17
172	In vitro diagnosis of DNA methylation biomarkers with digital PCR in breast tumors. Analyst, The, 2018, 143, 3011-3020.	1.7	17
173	An improved detection limit and working range of lateral flow assays based on a mathematical model. Analyst, The, 2018, 143, 2775-2783.	1.7	17
174	Differential Effects of Directional Cyclic Stretching on the Functionalities of Engineered Cardiac Tissues. ACS Applied Bio Materials, 2019, 2, 3508-3519.	2.3	17
175	A fast and ultrasensitive ELISA based on rolling circle amplification. Analyst, The, 2021, 146, 2871-2877.	1.7	17
176	Blockade efficacy of MEK/ERK-dependent autophagy enhances PI3K/Akt inhibitor NVP-BKM120's therapeutic effectiveness in lung cancer cells. Oncotarget, 2016, 7, 67277-67287.	0.8	17
177	The relationship between thiol-acrylate photopolymerization kinetics and hydrogel mechanics: An improved model incorporating photobleaching and thiol-Michael addition. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 88, 160-169.	1.5	16
178	Mechanical microenvironments of living cells: a critical frontier in mechanobiology. Acta Mechanica Sinica/Lixue Xuebao, 2019, 35, 265-269.	1.5	16
179	Effect of Substrate Stiffness on Redox State of Single Cardiomyocyte: A Scanning Electrochemical Microscopy Study. Analytical Chemistry, 2020, 92, 4771-4779.	3.2	16
180	Cancer Physical Hallmarks as New Targets for Improved Immunotherapy. Trends in Cell Biology, 2021, 31, 520-524.	3.6	16

#	Article	IF	Citations
181	Recent advances in bitterness evaluation methods. Analytical Methods, 2012, 4, 599.	1.3	15
182	Thermal Pain in Teeth: Electrophysiology Governed by Thermomechanics. Applied Mechanics Reviews, 2014, 66, 0308011-3080114.	4.5	15
183	Deformation Hysteresis of Electrohydrodynamic Patterning on a Thin Polymer Film. ACS Applied Materials & Interfaces, 2016, 8, 17668-17675.	4.0	15
184	A modified energy transfer model for determination of upconversion emission of Î²-NaYF 4 :Yb,Er: Role of self-quenching effect. Journal of Luminescence, 2017, 185, 292-297.	1.5	15
185	Liquid Plasticine Integrated with Isoelectric Focusing for Miniaturized Protein Analysis. Analytical Chemistry, 2020, 92, 9048-9056.	3.2	15
186	miRNAâ€mediated macrophage behaviors responding to matrix stiffness and oxâ€LDL. Journal of Cellular Physiology, 2020, 235, 6139-6153.	2.0	15
187	Hydrogel Electronics: Biofriendly, Stretchable, and Reusable Hydrogel Electronics as Wearable Force Sensors (Small 36/2018). Small, 2018, 14, 1870166.	5.2	14
188	The protective effects of acupoint gel embedding on rats with myocardial ischemia-reperfusion injury. Life Sciences, 2018, 211, 51-62.	2.0	14
189	Quantifying and Adjusting Plasmonâ€Driven Nanoâ€Localized Temperature Field around Gold Nanorods for Nucleic Acids Amplification. Small Methods, 2021, 5, 2001254.	4.6	14
190	A digitalized isothermal nucleic acid testing platform based on a pump-free open droplet array microfluidic chip. Analyst, The, 2021, 146, 6960-6969.	1.7	14
191	Self-Propelled Hovercraft Based on Cold Leidenfrost Phenomenon. Scientific Reports, 2016, 6, 28574.	1.6	13
192	Non-contact tensile viscoelastic characterization of microscale biological materials. Acta Mechanica Sinica/Lixue Xuebao, 2018, 34, 589-599.	1.5	13
193	Analysis of Leukocyte Behaviors on Microfluidic Chips. Advanced Healthcare Materials, 2019, 8, e1801406.	3.9	13
194	Methacrylated gelatin-embedded fabrication of 3D graphene-supported Co3O4 nanoparticles for water splitting. Nanoscale, 2019, 11, 6866-6875.	2.8	13
195	Paper-based capacitive sensors for identification and quantification of chemicals at the point of care. Talanta, 2017, 165, 419-428.	2.9	12
196	Drug Delivery: Engineering the Surface of Smart Nanocarriers Using a pHâ€/Thermalâ€/GSHâ€Responsive Polymer Zipper for Precise Tumor Targeting Therapy In Vivo (Adv. Mater. 36/2017). Advanced Materials, 2017, 29, .	11.1	12
197	A mechanoelectrical coupling model of neurons under stretching. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 93, 213-221.	1.5	12
198	Remodeling of aligned fibrous extracellular matrix by encapsulated cells under mechanical stretching. Acta Biomaterialia, 2020, 112, 202-212.	4.1	12

#	Article	IF	Citations
199	Fluorescent conjugated polymer nanovector for in vivo tracking and regulating the fate of stem cells for restoring infarcted myocardium. Acta Biomaterialia, 2020, 109, 195-207.	4.1	12
200	The Plasticity of Nanofibrous Matrix Regulates Fibroblast Activation in Fibrosis. Advanced Healthcare Materials, 2021, 10, e2001856.	3.9	12
201	Recent Developments of Three-Dimensional Paper-Based Electrochemical Devices for Cancer Cell Detection and Anticancer Drug Screening. Current Pharmaceutical Biotechnology, 2016, 17, 802-809.	0.9	12
202	Structures formed by a cell membrane-associated arabinogalactan-protein on graphite or mica alone and with Yariv phenylglycosides. Annals of Botany, 2014, 114, 1385-1397.	1.4	11
203	Antiproliferative Activity and Cellular Uptake of Evodiamine and Rutaecarpine Based on 3D Tumor Models. Molecules, 2016, 21, 954.	1.7	11
204	Investigating the Effect of Substrate Stiffness on the Redox State of Cardiac Fibroblasts Using Scanning Electrochemical Microscopy. Analytical Chemistry, 2021, 93, 5797-5804.	3.2	11
205	Construction of cancer-on-a-chip for drug screening. Drug Discovery Today, 2021, 26, 1875-1890.	3.2	11
206	Electrospin-Coating of Paper: A Natural Extracellular Matrix Inspired Design of Scaffold. Polymers, 2019, 11, 650.	2.0	10
207	Chemically Triggered Hydrogel Transformations through Covalent Adaptable Networks and Applications in Cell Culture. ACS Macro Letters, 2021, 10, 901-906.	2.3	10
208	Engineering ellipsoidal cap-like hydrogel particles as building blocks or sacrificial templates for three-dimensional cell culture. Biomaterials Science, 2018, 6, 885-892.	2.6	9
209	Retinal image measurements and their association with chronic kidney disease in Chinese patients with type 2 diabetes: the NCD study. Acta Diabetologica, 2021, 58, 363-370.	1.2	9
210	Taqman-MGB nanoPCR for Highly Specific Detection of Single-Base Mutations. International Journal of Nanomedicine, 2021, Volume 16, 3695-3705.	3.3	9
211	Graphene foam/hydrogel scaffolds for regeneration of peripheral nerve using ADSCs in a diabetic mouse model. Nano Research, 2022, 15, 3434-3445.	5.8	9
212	A two-dimensional mathematical model for analyzing the effects of capture probe properties on the performance of lateral flow assays. Analyst, The, 2019, 144, 5394-5403.	1.7	8
213	ARL4C might serve as a prognostic factor and a novel therapeutic target for gastric cancer: bioinformatics analyses and biological experiments. Journal of Cellular and Molecular Medicine, 2021, 25, 4014-4027.	1.6	8
214	Evaporation-Induced Diffusion Acceleration in Liquid-Filled Porous Materials. ACS Omega, 2021, 6, 21646-21654.	1.6	8
215	In Situ and Quantitative Monitoring of Cardiac Tissues Using Programmable Scanning Electrochemical Microscopy. Analytical Chemistry, 2022, 94, 10515-10523.	3.2	8
216	Experimental and simulation studies of polyarginines across the membrane of giant unilamellar vesicles. RSC Advances, 2016, 6, 30454-30459.	1.7	7

#	Article	IF	Citations
217	Therapeutic nanomaterials for cancer therapy and tissue regeneration. Drug Discovery Today, 2017, 22, 1285-1287.	3.2	7
218	Droplet based vitrification for cell aggregates: Numerical analysis. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 82, 383-393.	1.5	7
219	Volumetric response of an ellipsoidal liquid inclusion: implications for cell mechanobiology. Acta Mechanica Sinica/Lixue Xuebao, 2019, 35, 338-342.	1.5	7
220	Janus Vitrification of Droplet via Cold Leidenfrost Phenomenon. Small, 2021, 17, e2007325.	5.2	7
221	Role of Jakob number in Leidenfrost phenomena unveiled by theoretical modeling. Physics of Fluids, 2019, 31, 042109.	1.6	6
222	Translation of a Coated Rigid Spherical Inclusion in an Elastic Matrix: Exact Solution, and Implications for Mechanobiology. Journal of Applied Mechanics, Transactions ASME, 2019, 86, 0510021-5100210.	1.1	6
223	Mathematical modelling of thermocapillary patterning in thin liquid film: an equilibrium study. Journal of Fluid Mechanics, 2021, 919, .	1.4	6
224	Comparison of paper-based nucleic acid extraction materials for point-of-care testing applications. Cellulose, 2022, 29, 2479-2495.	2.4	6
225	A smart ball sensor fabricated by laser kirigami of graphene for personalized long-term grip strength monitoring. Npj Flexible Electronics, 2022, 6, .	5.1	6
226	Engineering Artificial Machines from Designable DNA Materials for Biomedical Applications. Tissue Engineering - Part B: Reviews, 2015, 21, 288-297.	2.5	5
227	Elastoplastic Deformation of Silk Micro- and Nanostructures. ACS Biomaterials Science and Engineering, 2016, 2, 893-899.	2.6	5
228	Tailoring patchy nanoparticle design to modulate serum albumin adsorption and membrane interaction. Soft Matter, 2021, 17, 2071-2080.	1.2	5
229	Compact empty substrate integrated waveguide with high performance and its application in microwave. IET Microwaves, Antennas and Propagation, 2021, 15, 1432-1440.	0.7	5
230	Microsphere sensors for characterizing stress fields within three-dimensional extracellular matrix. Acta Biomaterialia, 2022, 141, 1-13.	4.1	5
231	Ultrasensitive multiplexed detection of small molecules and enzymes using stimuli-responsive nucleic acids. Chemical Engineering Journal, 2022, 440, 135797.	6.6	5
232	Mixed convective heat transfer of water in a pipe under supercritical pressure. Heat Transfer - Asian Research, 2005, 34, 608-619.	2.8	4
233	Selfâ€Healing Materials: Novel Biocompatible Polysaccharideâ€Based Selfâ€Healing Hydrogel (Adv. Funct.) Tj ETQq1 1 0.784314 rgBT	7.8	4
234	Melting Away Pain: Decay of Thermal Nociceptor Transduction during Heat-Induced Irreversible Desensitization of Ion Channels. ACS Biomaterials Science and Engineering, 2017, 3, 3029-3035.	2.6	4

#	Article	IF	Citations
235	The race to the nociceptor: mechanical versus temperature effects in thermal pain of dental neurons. Acta Mechanica Sinica/Lixue Xuebao, 2017, 33, 260-266.	1.5	4
236	Electrostatic switching of nuclear basket conformations provides a potential mechanism for nuclear mechanotransduction. Journal of the Mechanics and Physics of Solids, 2019, 133, 103705.	2.3	4
237	Fountain streaming contributes to fast tip-growth through regulating the gradients of turgor pressure and concentration in pollen tubes. Soft Matter, 2017, 13, 2919-2927.	1.2	3
238	Soft Fibrous Structures in Nature as Liquid Catcher. Acta Mechanica Solida Sinica, 2019, 32, 580-590.	1.0	3
239	A sixâ€port network based on substrate integrated waveguide coupler with metal strips. IET Microwaves, Antennas and Propagation, 0, , .	0.7	3
240	Hydrogel Fibers: Chineseâ€Noodleâ€Inspired Muscle Myofiber Fabrication (Adv. Funct. Mater. 37/2015). Advanced Functional Materials, 2015, 25, 6020-6020.	7.8	2
241	Tissue Engineering: Recent Advances in Electrospun Nanofibrous Scaffolds for Cardiac Tissue Engineering (Adv. Funct. Mater. 36/2015). Advanced Functional Materials, 2015, 25, 5875-5875.	7.8	2
242	Cell laden and patterned chitosan microgel for micro-scale tissue engineering. Journal of Controlled Release, 2015, 213, e9.	4.8	2
243	Relation Between C-X-C Motif Chemokine Receptor 4 Levels and the Presence and Extent of Angiographic Coronary Collaterals in Patients With Chronic Total Coronary Occlusion. American Journal of Cardiology, 2016, 118, 1136-1143.	0.7	2
244	Viral Detection: Lateral Flow Assay Based on Paperâ€“Hydrogel Hybrid Material for Sensitive Pointâ€ofâ€Care Detection of Dengue Virus (Adv. Healthcare Mater. 1/2017). Advanced Healthcare Materials, 2017, 6, .	3.9	2
245	Energetics: An emerging frontier in cellular mechanosensing. Physics of Life Reviews, 2017, 22-23, 130-135.	1.5	2
246	Association of CXCR4 expression with coronary collateralization in patients with chronic total coronary occlusion: A nested caseâ€“control study. International Journal of Cardiology, 2017, 228, 501-506.	0.8	2
247	Biomechanics in plant resistance to drought. Acta Mechanica Sinica/Lixue Xuebao, 2020, 36, 1142-1157.	1.5	2
248	Correction of bias in the estimation of cell volume fraction from histology sections. Journal of Biomechanics, 2020, 104, 109705.	0.9	2
249	Bioinspired Microstructure Platform for Modular Cellâ€Laden Microgel Fabrication. Macromolecular Bioscience, 2021, 21, 2100110.	2.1	2
250	CONTROLLED ASYMMETRICAL DIFFERENTIATION OF MOUSE EMBRYOID BODIES IN MICROWELLS WITH DESIGNED HETEROGENEOUS BIOCHEMICAL FEATURES. Journal of Mechanics in Medicine and Biology, 2013, 13, 1340003.	0.3	1
251	Controlled cyclic drug release based on chemomechanical gels. Journal of Controlled Release, 2015, 213, e33.	4.8	1
252	Effect of a microwave warming of cell culture media on cell viability and confluence rate. Microsystem Technologies, 2016, 22, 2307-2313.	1.2	1

#	Article	IF	Citations
253	Nuclear deformation in mechanotransduction: A new role for heterogeneity. Biophysical Journal, 2021, 120, 1301-1303.	0.2	1
254	Wearable Electronics: Environmentally Compatible Wearable Electronics Based on Ionically Conductive Organohydrogels for Health Monitoring with Thermal Compatibility, Antiâ€Dehydration, and Underwater Adhesion (Small 24/2021). Small, 2021, 17, 2170122.	5.2	1
255	A new model of myofibroblast-cardiomyocyte interactions and their differences across species. Biophysical Journal, 2021, 120, 3764-3775.	0.2	1
256	Diagnosis and prognosis for exercise-induced muscle injuries: from conventional imaging to emerging point-of-care testing. RSC Advances, 2020, 10, 38847-38860.	1.7	1
257	Macromol. Rapid Commun. 18/2013. Macromolecular Rapid Communications, 2013, 34, 1500-1500.	2.0	0
258	A Prelude to Engineering of Cell Microenvironment Using Novel Hydrogels. Journal of Nanotechnology in Engineering and Medicine, 2015, 6, .	0.8	0
259	Bioinspired Structures: Collective Wetting of a Natural Fibrous System and Its Application in Pumpâ€Free Droplet Transfer (Adv. Funct. Mater. 22/2017). Advanced Functional Materials, 2017, 27, .	7.8	0
260	Vibration of a liquid-filled capillary tube. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 106, 103745.	1.5	0
261	Effect of gene mutation of plants on their mechano-sensibility: the mutant of EXO70H4 influences the buckling of Arabidopsis trichomes. Analyst, The, 2021, 146, 5169-5176.	1.7	0
262	Janus Particles: Janus Vitrification of Droplet via Cold Leidenfrost Phenomenon (Small 17/2021). Small, 2021, 17, 2170075.	5.2	0
263	Anomalous Loss of Stiffness with Increasing Reinforcement in a Photoâ€Activated Nanocomposite. Macromolecular Rapid Communications, 2021, 42, 2100147.	2.0	0