Minghao Nie

List of Publications by Year
in descending order

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75 papers	5,352 citations	117625 34 h-index	144013 57 g-index
76 all docs	76 docs citations	76 times ranked	6103 citing authors

#	Article	IF	Citations
1	In vitro proliferation and long-term preservation of functional primary rat hepatocytes in cell fibers. Scientific Reports, 2022, 12, .	3.3	4
2	Biohybrid sensor for odor detection. Lab on A Chip, 2021, 21, 2643-2657.	6.0	20
3	Biofabricating murine and human myoâ€substitutes for rapid volumetric muscle loss restoration. EMBO Molecular Medicine, 2021, 13, e12778.	6.9	29
4	Formation of contractile 3D bovine muscle tissue for construction of millimetre-thick cultured steak. Npj Science of Food, 2021, 5, 6.	5.5	81
5	Artificial Cell Membrane Sensors with Membrane Proteins. Vacuum and Surface Science, 2021, 64, 162-167.	0.1	0
6	Monolithic Fabrication of a Lipid Bilayer Device Using Stereolithography. , 2021, , .		0
7	Manufacturing of animal products by the assembly of microfabricated tissues. Essays in Biochemistry, 2021, 65, 611-623.	4.7	9
8	Efficient Lipid Bilayer Formation by Dipping Lipid-Loaded Microperforated Sheet in Aqueous Solution. Micromachines, 2021, 12, 53.	2.9	2
9	A Cylindrical Molding Method for the Biofabrication of Plane-Shaped Skeletal Muscle Tissue. Micromachines, 2021, 12, 1411.	2.9	7
10	3D Biofabrication Using Living Cells for Applications in Biohybrid Sensors and Actuators. ACS Applied Bio Materials, 2020, 3, 8121-8126.	4.6	5
11	Luer-lock valve: A pre-fabricated pneumatic valve for 3D printed microfluidic automation. Biomicrofluidics, 2020, 14, 044115.	2.4	4
12	Microfluidic Device for the Analysis of Angiogenic Sprouting under Bidirectional Biochemical Gradients. Micromachines, 2020, 11, 1049.	2.9	4
13	A Lipid-Bilayer-On-A-Cup Device for Pumpless Sample Exchange. Micromachines, 2020, 11, 1123.	2.9	2
14	3D Microfluidic Device for Perfusion Culture of Spheroids. , 2020, , .		1
15	3D Pocket-Shape Dermis-Equivalent as a Skin Material for a Robotic Finger. , 2020, , .		0
16	3D culture of functional human iPSC-derived hepatocytes using a core-shell microfiber. PLoS ONE, 2020, 15, e0234441.	2.5	16
17	Locally-Patterned Parylene Membrane Enables Electrical Resistance Measurement for a Cellular Barrier Consisting of < 100 Cells. , 2020, , .		0
18	Odorant Sensor Using Olfactory Receptor Reconstituted in a Lipid Bilayer Membrane with Gas Flow System. , 2020, , .		0

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19	The bioprinting roadmap. Biofabrication, 2020, 12, 022002.	7.1	291
20	Micro Tissue Assembly for Co-Culturing 3D Skeletal Muscle and Adipose Tissues. , 2020, , .		0
21	Biohybrid robot with skeletal muscle tissue covered with a collagen structure for moving in air. APL Bioengineering, 2020, 4, 026101.	6.2	51
22	Cell-laden microfibers fabricated using Î¼l cell-suspension. Biofabrication, 2020, 12, 045021.	7.1	5
23	3D culture of functional human iPSC-derived hepatocytes using a core-shell microfiber. , 2020, 15, e0234441.		0
24	3D culture of functional human iPSC-derived hepatocytes using a core-shell microfiber. , 2020, 15, e0234441.		0
25	3D culture of functional human iPSC-derived hepatocytes using a core-shell microfiber. , 2020, 15, e0234441.		0
26	3D culture of functional human iPSC-derived hepatocytes using a core-shell microfiber. , 2020, 15, e0234441.		0
27	A pumpless solution exchange system for nanopore sensors. Biomicrofluidics, 2019, 13, 064104.	2.4	11
28	Stacking 2D Droplet Arrays for 3D Configurable Droplet Network. , 2019, , .		0
29	Pumpless Solution Exchange for Repeatable Nanopore Biosensor Driven by Superabsorbent Polymer and Hydrostatic Pressure. , 2019, , .		0
30	Vascularized Spheroid Array in a Microfluidic Channel. , 2019, , .		1
31	Construction of a Biohybrid Odorant Sensor Using Biological Olfactory Receptors Embedded into Bilayer Lipid Membrane on a Chip. ACS Sensors, 2019, 4, 711-716.	7.8	46
32	Portable biohybrid odorant sensors using cell-laden collagen micropillars. Lab on A Chip, 2019, 19, 1971-1976.	6.0	15
33	Biohybrid device with antagonistic skeletal muscle tissue for measurement of contractile force. Advanced Robotics, 2019, 33, 208-218.	1.8	19
34	Perfusable and stretchable 3D culture system for skin-equivalent. Biofabrication, 2019, 11, 011001.	7.1	42
35	Membrane protein-based biosensors. Journal of the Royal Society Interface, 2018, 15, 20170952.	3.4	53
36	Biofabrication strategies for 3D in vitro models and regenerative medicine. Nature Reviews Materials, 2018, 3, 21-37.	48.7	502

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37	Perspective: The promise of multi-cellular engineered living systems. APL Bioengineering, 2018, 2, 040901.	6.2	110
38	Bottom-up biofabrication using microfluidic techniques. Biofabrication, 2018, 10, 044103.	7.1	42
39	Biohybrid robot powered by an antagonistic pair of skeletal muscle tissues. Science Robotics, 2018, 3, .	17.6	170
40	Three-dimensional contractile muscle tissue consisting of human skeletal myocyte cell line. Experimental Cell Research, 2018, 370, 168-173.	2.6	25
41	Three-dimensional printed microfluidic modules for design changeable coaxial microfluidic devices. Sensors and Actuators B: Chemical, 2018, 274, 491-500.	7.8	37
42	Formation of Branched and Chained Alginate Microfibers Using Theta-Glass Capillaries. Micromachines, 2018, 9, 303.	2.9	13
43	Handheld nanopore-based biosensing device. , 2018, , .		1
44	Microfluidics based synthesis of coiled hydrogel microfibers with flexible shape and dimension control. Sensors and Actuators B: Chemical, 2017, 246, 358-362.	7.8	24
45	Artificial Cell Membrane Systems for Biosensing Applications. Analytical Chemistry, 2017, 89, 216-231.	6.5	97
46	Skin integrated with perfusable vascular channels on a chip. Biomaterials, 2017, 116, 48-56.	11.4	203
47	Multicellular Biohybrid Materials: Probing the Interplay of Cells of Different Types Precisely Positioned and Constrained on 3D Wireframeâ€Like Microstructures. Advanced Healthcare Materials, 2017, 6, 1601053.	7.6	17
48	Pesticide vapor sensing using an aptamer, nanopore, and agarose gel on a chip. Lab on A Chip, 2017, 17, 2421-2425.	6.0	46
49	Differentiation Induction of Mouse Neural Stem Cells in Hydrogel Tubular Microenvironments with Controlled Tube Dimensions. Advanced Healthcare Materials, 2016, 5, 1104-1111.	7.6	31
50	Microfluidic fabrication of hydrogel-fiber-based 3D constructs utilizing liquid rope-coil effect. , 2016, , .		0
51	3D Tissue Formation of Unilocular Adipocytes in Hydrogel Microfibers. Advanced Healthcare Materials, 2016, 5, 548-556.	7.6	31
52	Smooth Muscle-Like Tissue Constructs with Circumferentially Oriented Cells Formed by the Cell Fiber Technology. PLoS ONE, 2015, 10, e0119010.	2.5	59
53	Formation of liquid rope coils in a coaxial microfluidic device. RSC Advances, 2015, 5, 33691-33695.	3.6	57
54	Point-, line-, and plane-shaped cellular constructs for 3D tissue assembly. Advanced Drug Delivery Reviews, 2015, 95, 29-39.	13.7	63

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55	Cell-laden microfibers for bottom-up tissue engineering. Drug Discovery Today, 2015, 20, 236-246.	6.4	130
56	A Portable Lipid Bilayer System for Environmental Sensing with a Transmembrane Protein. PLoS ONE, 2014, 9, e102427.	2.5	43
57	Digital fast startup procedure for micro-machined vibratory gyroscopes using optimized fuzzy control strategy. , 2014, , .		0
58	Centrifuge-based cell encapsulation in hydrogel microbeads using sub-microliter sample solution. RSC Advances, 2014, 4, 30480.	3.6	31
59	Chemical Vapor Detection Using a Reconstituted Insect Olfactory Receptor Complex. Angewandte Chemie - International Edition, 2014, 53, 11798-11802.	13.8	60
60	Three-dimensional neuronâ€“muscle constructs with neuromuscular junctions. Biomaterials, 2013, 34, 9413-9419.	11.4	162
61	Cellular building unit integrated with microstrand-shaped bacterial cellulose. Biomaterials, 2013, 34, 2421-2427.	11.4	53
62	A lateral-axis MEMS tuning fork gyroscope with nozzle-optimized squeeze-film sensing element. , 2013, , .		0
63	Construction of 3D, Layered Skin, Microsized Tissues by Using Cell Beads for Cellular Function Analysis. Advanced Healthcare Materials, 2013, 2, 261-265.	7.6	34
64	Metre-long cell-laden microfibres exhibit tissue morphologies and functions. Nature Materials, 2013, 12, 584-590.	27.5	725
65	Automated Parallel Recordings of Topologically Identified Single Ion Channels. Scientific Reports, 2013, 3, 1995.	3.3	123
66	Meterâ€Long and Robust Supramolecular Strands Encapsulated in Hydrogel Jackets. Angewandte Chemie - International Edition, 2012, 51, 1553-1557.	13.8	55
67	Rapid Detection of a Cocaine-Binding Aptamer Using Biological Nanopores on a Chip. Journal of the American Chemical Society, 2011, 133, 8474-8477.	13.7	187
68	Molding Cell Beads for Rapid Construction of Macroscopic 3D Tissue Architecture. Advanced Materials, 2011, 23, H90-4.	21.0	275
69	A hybrid axisymmetric flow-focusing device for monodisperse picoliter droplets. Journal of Micromechanics and Microengineering, 2011, 21, 054031.	2.6	20
70	Highly sensitive and selective odorant sensor using living cells expressing insect olfactory receptors. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15340-15344.	7.1	116
71	Multichannel Simultaneous Measurements of Single-Molecule Translocation in Î±-Hemolysin Nanopore Array. Analytical Chemistry, 2009, 81, 9866-9870.	6.5	103
72	Three-dimensional axisymmetric flow-focusing device using stereolithography. Biomedical Microdevices, 2009, 11, 369-377.	2.8	83

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73	Lipid Bilayer Formation by Contacting Monolayers in a Microfluidic Device for Membrane Protein Analysis. Analytical Chemistry, 2006, 78, 8169-8174.	6.5	443
74	Highly coupled ATP synthesis by F1-ATPase single molecules. Nature, 2005, 433, 773-777.	27.8	380
75	Unidirectional Transport of Kinesin-Coated Beads on Microtubules Oriented in a Microfluidic Device. Nano Letters, 2004, 4, 2265-2270.	9.1	83