Shoji Takeuchi

List of Publications by Year
in descending order

410 papers	15,462 citations	19608 61 h-index	20900 115 g-index
420 all docs	420 docs citations	420 times ranked	15384 citing authors

#	Article	IF	Citations
1	Metre-long cell-laden microfibres exhibit tissue morphologies and functions. Nature Materials, 2013, 12, 584-590.	13.3	725
2	Monodisperse Alginate Hydrogel Microbeads for Cell Encapsulation. Advanced Materials, 2007, 19, 2696-2701.	11.1	546
3	A trap-and-release integrated microfluidic system for dynamic microarray applications. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 1146-1151.	3.3	536
4	Biofabrication: reappraising the definition of an evolving field. Biofabrication, 2016, 8, 013001.	3.7	523
5	Biofabrication strategies for 3D in vitro models and regenerative medicine. Nature Reviews Materials, 2018, 3, 21-37.	23.3	502
6	Biofabrication: A Guide to Technology and Terminology. Trends in Biotechnology, 2018, 36, 384-402.	4.9	465
7	Lipid Bilayer Formation by Contacting Monolayers in a Microfluidic Device for Membrane Protein Analysis. Analytical Chemistry, 2006, 78, 8169-8174.	3.2	443
8	Highly coupled ATP synthesis by F1-ATPase single molecules. Nature, 2005, 433, 773-777.	13.7	380
9	Parylene flexible neural probes integrated with microfluidic channels. Lab on A Chip, 2005, 5, 519.	3.1	345
10	An Axisymmetric Flow-Focusing Microfluidic Device. Advanced Materials, 2005, 17, 1067-1072.	11.1	335
11	Microfabricated arrays of femtoliter chambers allow single molecule enzymology. Nature Biotechnology, 2005, 23, 361-365.	9.4	332
12	The bioprinting roadmap. Biofabrication, 2020, 12, 022002.	3.7	291
13	Molding Cell Beads for Rapid Construction of Macroscopic 3D Tissue Architecture. Advanced Materials, 2011, 23, H90-4.	11.1	275
14	Long-term in vivo glucose monitoring using fluorescent hydrogel fibers. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13399-13403.	3.3	257
15	Injectable hydrogel microbeads for fluorescence-based in vivo continuous glucose monitoring. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17894-17898.	3.3	251
16	3D flexible multichannel neural probe array. Journal of Micromechanics and Microengineering, 2004, 14, 104-107.	1.5	210
17	Skin integrated with perfusable vascular channels on a chip. Biomaterials, 2017, 116, 48-56.	5.7	203
18	Cell Origami: Self-Folding of Three-Dimensional Cell-Laden Microstructures Driven by Cell Traction Force. PLoS ONE, 2012, 7, e51085.	1.1	197

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19	Controlled Synthesis of 3D Multiâ€Compartmental Particles with Centrifugeâ€Based Microdroplet Formation from a Multiâ€Barrelled Capillary. Advanced Materials, 2012, 24, 1340-1346.	11.1	188
20	Rapid Detection of a Cocaine-Binding Aptamer Using Biological Nanopores on a Chip. Journal of the American Chemical Society, 2011, 133, 8474-8477.	6.6	187
21	Biohybrid robot powered by an antagonistic pair of skeletal muscle tissues. Science Robotics, 2018, 3, .	9.9	170
22	Encapsulating Bacteria in Agarose Microparticles Using Microfluidics for High-Throughput Cell Analysis and Isolation. ACS Chemical Biology, 2011, 6, 260-266.	1.6	166
23	Formation of Giant Lipid Vesiclelike Compartments from a Planar Lipid Membrane by a Pulsed Jet Flow. Journal of the American Chemical Society, 2007, 129, 12608-12609.	6.6	162
24	Three-dimensional neuronâ€“muscle constructs with neuromuscular junctions. Biomaterials, 2013, 34, 9413-9419.	5.7	162
25	Microfluidic Formation of Monodisperse, Cellâ€Sized, and Unilamellar Vesicles. Angewandte Chemie - International Edition, 2009, 48, 6533-6537.	7.2	154
26	Controlling the Shape of Filamentous Cells of Escherichia coli. Nano Letters, 2005, 5, 1819-1823.	4.5	149
27	Fluid shear triggers microvilli formation via mechanosensitive activation of TRPV6. Nature Communications, 2015, 6, 8871.	5.8	136
28	Cell-laden microfibers for bottom-up tissue engineering. Drug Discovery Today, 2015, 20, 236-246.	3.2	130
29	Automated Parallel Recordings of Topologically Identified Single Ion Channels. Scientific Reports, 2013, 3, 1995.	1.6	123
30	Cell-sized asymmetric lipid vesicles facilitate the investigation of asymmetric membranes. Nature Chemistry, 2016, 8, 881-889.	6.6	119
31	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.	3.3	116
32	Biomolecular-motor-based autonomous delivery of lipid vesicles as nano- or microscale reactors on a chip. Lab on A Chip, 2010, 10, 2741.	3.1	116
33	Biomolecular-Motor-Based Nano- or Microscale Particle Translocations on DNA Microarrays. Nano Letters, 2009, 9, 2407-2413.	4.5	112
34	Perspective: The promise of multi-cellular engineered living systems. APL Bioengineering, 2018, 2, 040901.	3.3	110
35	Multichannel Simultaneous Measurements of Single-Molecule Translocation in Î±-Hemolysin Nanopore Array. Analytical Chemistry, 2009, 81, 9866-9870.	3.2	103
36	Parylene-coating in PDMS microfluidic channels prevents the absorption of fluorescent dyes. Sensors and Actuators B: Chemical, 2010, 150, 478-482.	4.0	102

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37	Lipid Bilayer Microarray for Parallel Recording of Transmembrane Ion Currents. Analytical Chemistry, 2008, 80, 328-332.	3.2	101
38	Fabrication of Flexible Neural Probes With Built-In Microfluidic Channels by Thermal Bonding of Parylene. Journal of Microelectromechanical Systems, 2006, 15, 1477-1482.	1.7	100
39	Dynamic microarray system with gentle retrieval mechanism for cell-encapsulating hydrogel beads. Lab on A Chip, 2008, 8, 259-266.	3.1	99
40	Towards Smart Tattoos: Implantable Biosensors for Continuous Glucose Monitoring. Advanced Healthcare Materials, 2013, 2, 43-56.	3.9	99
41	Artificial Cell Membrane Systems for Biosensing Applications. Analytical Chemistry, 2017, 89, 216-231.	3.2	97
42	Highly Reproducible Method of Planar Lipid Bilayer Reconstitution in Polymethyl Methacrylate Microfluidic Chip. Langmuir, 2006, 22, 1937-1942.	1.6	94
43	Monodisperse Cell-Encapsulating Peptide Microgel Beads for 3D Cell Culture. Langmuir, 2010, 26, 2645-2649.	1.6	92
44	Metal-Organic Cuboctahedra for Synthetic Ion Channels with Multiple Conductance States. CheM, 2017, 2, 393-403.	5.8	89
45	Planar lipid bilayer reconstitution with a micro-fluidic system. Lab on A Chip, 2004, 4, 502.	3.1	85
46	Unidirectional Transport of Kinesin-Coated Beads on Microtubules Oriented in a Microfluidic Device. Nano Letters, 2004, 4, 2265-2270.	4.5	83
47	Three-dimensional axisymmetric flow-focusing device using stereolithography. Biomedical Microdevices, 2009, 11, 369-377.	1.4	83
48	Formation of contractile 3D bovine muscle tissue for construction of millimetre-thick cultured steak. Npj Science of Food, 2021, 5, 6.	2.5	81
49	A neurospheroid network-stamping method for neural transplantation to the brain. Biomaterials, 2010, 31, 8939-8945.	5.7	78
50	A Microfluidic Device for Electrofusion of Biological Vesicles. Biomedical Microdevices, 2004, 6, 213-218.	1.4	77
51	A monolithically three-dimensional flow-focusing device for formation of single/double emulsions in closed/open microfluidic systems. Journal of Micromechanics and Microengineering, 2006, 16, 2336-2344.	1.5	76
52	Millimeterâ€Sized Neural Building Blocks for 3D Heterogeneous Neural Network Assembly. Advanced Healthcare Materials, 2013, 2, 1564-1570.	3.9	76
53	Graphene-templated directional growth of an inorganic nanowire. Nature Nanotechnology, 2015, 10, 423-428.	15.6	75
54	A Polymerâ€Based Nanoporeâ€Integrated Microfluidic Device for Generating Stable Bilayer Lipid Membranes. Small, 2010, 6, 2100-2104.	5.2	74

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55	A three-dimensional shape memory alloy microelectrode with clipping structure for insect neural recording. Journal of Microelectromechanical Systems, 2000, 9, 24-31.	1.7	73
56	Monodisperse semi-permeable microcapsules for continuous observation of cells. Lab on A Chip, 2009, 9, 2217.	3.1	73
57	Timing controllable electrofusion device for aqueous droplet-based microreactors. Lab on A Chip, 2006, 6, 757.	3.1	70
58	Light generation of intracellular Ca2+ signals by a genetically encoded protein BACCS. Nature Communications, 2015, 6, 8021.	5.8	67
59	Giant liposome formation toward the synthesis of well-defined artificial cells. Journal of Materials Chemistry B, 2017, 5, 5911-5923.	2.9	65
60	Utilization of Cell-Sized Lipid Containers for Nanostructure and Macromolecule Handling in Microfabricated Devices. Analytical Chemistry, 2005, 77, 2795-2801.	3.2	64
61	A dynamic microarray device for paired bead-based analysis. Lab on A Chip, 2010, 10, 2443.	3.1	64
62	Electroformation of giant liposomes in microfluidic channels. Measurement Science and Technology, 2006, 17, 3121-3126.	1.4	63
63	Point-, line-, and plane-shaped cellular constructs for 3D tissue assembly. Advanced Drug Delivery Reviews, 2015, 95, 29-39.	6.6	63
64	Electrophysiological recordings of single ion channels in planar lipid bilayers using a polymethyl methacrylate microfluidic chip. Biosensors and Bioelectronics, 2007, 22, 1111-1115.	5.3	60
65	Chemical Vapor Detection Using a Reconstituted Insect Olfactory Receptor Complex. Angewandte Chemie - International Edition, 2014, 53, 11798-11802.	7.2	60
66	A Radio-Telemetry System With a Shape Memory Alloy Microelectrode for Neural Recording of Freely Moving Insects. IEEE Transactions on Biomedical Engineering, 2004, 51, 133-137.	2.5	59
67	Smooth Muscle-Like Tissue Constructs with Circumferentially Oriented Cells Formed by the Cell Fiber Technology. PLoS ONE, 2015, 10, e0119010.	1.1	59
68	Hybrid Nanotransport System by Biomolecular Linear Motors. Journal of Microelectromechanical Systems, 2004, 13, 612-619.	1.7	58
69	Droplet microfluidics for the study of artificial cells. Analytical and Bioanalytical Chemistry, 2011, 400, 1705-1716.	1.9	58
70	Preparation of structurally colored, monodisperse spherical assemblies composed of black and white colloidal particles using a micro-flow-focusing device. Journal of Materials Chemistry C, 2015, 3, 769-777.	2.7	58
71	Formation of liquid rope coils in a coaxial microfluidic device. RSC Advances, 2015, 5, 33691-33695.	1.7	57
72	Meterâ€Long and Robust Supramolecular Strands Encapsulated in Hydrogel Jackets. Angewandte Chemie - International Edition, 2012, 51, 1553-1557.	7.2	55

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73	Microfluidic Control of the Internal Morphology in Nanofiberâ€Based Macroscopic Cables. Angewandte Chemie - International Edition, 2012, 51, 7942-7947.	7.2	53
74	Cellular building unit integrated with microstrand-shaped bacterial cellulose. Biomaterials, 2013, 34, 2421-2427.	5.7	53
75	Membrane protein-based biosensors. Journal of the Royal Society Interface, 2018, 15, 20170952.	1.5	53
76	Human induced pluripotent stem cell-derived fiber-shaped cardiac tissue on a chip. Lab on A Chip, 2016, 16, 2295-2301.	3.1	52
77	Biohybrid robot with skeletal muscle tissue covered with a collagen structure for moving in air. APL Bioengineering, 2020, 4, 026101.	3.3	51
78	Droplet Split-and-Contact Method for High-Throughput Transmembrane Electrical Recording. Analytical Chemistry, 2013, 85, 10913-10919.	3.2	49
79	Three-dimensional cell culture based on microfluidic techniques to mimic living tissues. Biomaterials Science, 2013, 1, 257-264.	2.6	47
80	Microtechnologies for membrane protein studies. Analytical and Bioanalytical Chemistry, 2008, 391, 2695-2702.	1.9	46
81	Microfluidic lipid membrane formation on microchamber arrays. Lab on A Chip, 2011, 11, 2485.	3.1	46
82	Pesticide vapor sensing using an aptamer, nanopore, and agarose gel on a chip. Lab on A Chip, 2017, 17, 2421-2425.	3.1	46
83	Construction of a Biohybrid Odorant Sensor Using Biological Olfactory Receptors Embedded into Bilayer Lipid Membrane on a Chip. ACS Sensors, 2019, 4, 711-716.	4.0	46
84	Loop-mediated isothermal amplification of a single DNA molecule in polyacrylamide gel-based microchamber. Biomedical Microdevices, 2008, 10, 539-546.	1.4	45
85	Unidirectional transport of a bead on a single microtubule immobilized in a submicrometre channel. Nanotechnology, 2006, 17, 289-294.	1.3	44
86	A Portable Lipid Bilayer System for Environmental Sensing with a Transmembrane Protein. PLoS ONE, 2014, 9, e102427.	1.1	43
87	pH-Induced Motion Control of Self-Propelled Oil Droplets Using a Hydrolyzable Gemini Cationic Surfactant. Langmuir, 2014, 30, 7977-7985.	1.6	42
88	Bottom-up biofabrication using microfluidic techniques. Biofabrication, 2018, 10, 044103.	3.7	42
89	Perfusable and stretchable 3D culture system for skin-equivalent. Biofabrication, 2019, 11, 011001.	3.7	42
90	Highly sensitive VOC detectors using insect olfactory receptors reconstituted into lipid bilayers. Science Advances, 2021, 7, .	4.7	42

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91	Endocrine pancreas engineered using porcine islets and partial pancreatic scaffolds. Pancreatology, 2016, 16, 922-930.	0.5	41
92	Liquid Cell Electron Microscopy of Nanoparticle Self-Assembly Driven by Solvent Drying. Journal of Physical Chemistry Letters, 2017, 8, 647-654.	2.1	41
93	Micro patterning of active proteins with perforated PDMS sheets (PDMS sieve). Lab on A Chip, 2004, 4, 333.	3.1	40
94	Ninety-six-well planar lipid bilayer chip for ion channel recording Fabricated by hybrid stereolithography. Biomedical Microdevices, 2009, 11, 17-22.	1.4	40
95	Droplet-based lipid bilayer system integrated with microfluidic channels for solution exchange. Lab on A Chip, 2013, 13, 1476.	3.1	40
96	Integrated Microfluidic System for Size-Based Selection and Trapping of Giant Vesicles. Analytical Chemistry, 2016, 88, 1111-1116.	3.2	40
97	Vertical Flow Lithography for Fabrication of 3D Anisotropic Particles. Small, 2015, 11, 6391-6396.	5.2	37
98	Three-dimensional printed microfluidic modules for design changeable coaxial microfluidic devices. Sensors and Actuators B: Chemical, 2018, 274, 491-500.	4.0	37
99	Gasâ€permeable membranes and coâ€culture with fibroblasts enable highâ€density hepatocyte culture as multilayered liver tissues. Biotechnology Progress, 2011, 27, 1146-1153.	1.3	36
100	CMOS image sensor-based implantable glucose sensor using glucose-responsive fluorescent hydrogel. Biomedical Optics Express, 2014, 5, 3859.	1.5	36
101	Construction of 3D, Layered Skin, Microsized Tissues by Using Cell Beads for Cellular Function Analysis. Advanced Healthcare Materials, 2013, 2, 261-265.	3.9	34
102	Neural stem/progenitor cellâ€laden microfibers promote transplant survival in a mouse transected spinal cord injury model. Journal of Neuroscience Research, 2015, 93, 1826-1838.	1.3	34
103	Rodâ€Shaped Neural Units for Aligned 3D Neural Network Connection. Advanced Healthcare Materials, 2017, 6, 1700143.	3.9	34
104	Selective drive of electrostatic actuators using remote inductive powering. Sensors and Actuators A: Physical, 2002, 95, 269-273.	2.0	33
105	Logic Gate Operation by DNA Translocation through Biological Nanopores. PLoS ONE, 2016, 11, e0149667.	1.1	33
106	Mass Production of Cellâ€Laden Calcium Alginate Particles with Centrifugal Force. Advanced Healthcare Materials, 2017, 6, 1601375.	3.9	33
107	Rapid aggregation of heterogeneous cells and multiple-sized microspheres in methylcellulose medium. Biomaterials, 2012, 33, 4508-4514.	5.7	32
108	Centrifuge-based cell encapsulation in hydrogel microbeads using sub-microliter sample solution. RSC Advances, 2014, 4, 30480.	1.7	31

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109	Lipid Bilayers on a Picoliter Microdroplet Array for Rapid Fluorescence Detection of Membrane Transport. Small, 2014, 10, 3275-3282.	5.2	31
110	Differentiation Induction of Mouse Neural Stem Cells in Hydrogel Tubular Microenvironments with Controlled Tube Dimensions. Advanced Healthcare Materials, 2016, 5, 1104-1111.	3.9	31
111	3D Tissue Formation of Unilocular Adipocytes in Hydrogel Microfibers. Advanced Healthcare Materials, 2016, 5, 548-556.	3.9	31
112	Electrophysiological measurement of ion channels on plasma/organelle membranes using an on-chip lipid bilayer system. Scientific Reports, 2018, 8, 17498.	1.6	31
113	A resettable dynamic microarray device. Biomedical Microdevices, 2011, 13, 1089-1094.	1.4	29
114	A glass fiber sheet-based electroosmotic lateral flow immunoassay for point-of-care testing. Lab on A Chip, 2012, 12, 5155.	3.1	29
115	Ultratrace Measurement of Acetone from Skin Using Zeolite: Toward Development of a Wearable Monitor of Fat Metabolism. Analytical Chemistry, 2015, 87, 7588-7594.	3.2	29
116	Cell fiber-based three-dimensional culture system for highly efficient expansion of human induced pluripotent stem cells. Scientific Reports, 2017, 7, 2850.	1.6	29
117	3D arrays of microcages by two-photon lithography for spatial organization of living cells. Lab on A Chip, 2019, 19, 875-884.	3.1	29
118	Biofabricating murine and human myoâ€substitutes for rapid volumetric muscle loss restoration. EMBO Molecular Medicine, 2021, 13, e12778.	3.3	29
119	Improvement in the Mechanical Properties of Cell-Laden Hydrogel Microfibers Using Interpenetrating Polymer Networks. ACS Biomaterials Science and Engineering, 2017, 3, 392-398.	2.6	27
120	Multi-Component Microscaffold With 3D Spatially Defined Proteinaceous Environment. ACS Biomaterials Science and Engineering, 2017, 3, 487-494.	2.6	27
121	Establishment of self-organization system in rapidly formed multicellular heterospheroids. Biomaterials, 2011, 32, 6059-6067.	5.7	26
122	Hydrogel Glucose Sensor with InÂVivo Stable Fluorescence Intensity Relying on Antioxidant Enzymes for Continuous Glucose Monitoring. IScience, 2020, 23, 101243.	1.9	26
123	A parylene lift-off process with microfluidic channels for selective protein patterning. Journal of Micromechanics and Microengineering, 2007, 17, 496-500.	1.5	25
124	Three-dimensional contractile muscle tissue consisting of human skeletal myocyte cell line. Experimental Cell Research, 2018, 370, 168-173.	1.2	25
125	Biomolecular linear motors confined to move upon micro-patterns on glass. Journal of Micromechanics and Microengineering, 2006, 16, 1550-1554.	1.5	24
126	Parylene Mobile Microplates Integrated with an Enzymatic Release for Handling of Single Adherent Cells. Small, 2014, 10, 912-921.	5.2	24

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127	Microfluidics based synthesis of coiled hydrogel microfibers with flexible shape and dimension control. Sensors and Actuators B: Chemical, 2017, 246, 358-362.	4.0	24
128	Self-Propelled Motion of Monodisperse Underwater Oil Droplets Formed by a Microfluidic Device. Langmuir, 2017, 33, 5393-5397.	1.6	24
129	Centrifuge-based step emulsification device for simple and fast generation of monodisperse picoliter droplets. Sensors and Actuators B: Chemical, 2019, 301, 127164.	4.0	24
130	Microfabricated mobile microplates for handling single adherent cells. Journal of Micromechanics and Microengineering, 2008, 18, 095003.	1.5	23
131	Formation of Highly Aligned Collagen Nanofibers by Continuous Cyclic Stretch of a Collagen Hydrogel Sheet. Macromolecular Bioscience, 2016, 16, 995-1000.	2.1	23
132	Enhanced bile canaliculi formation enabling direct recovery of biliary metabolites of hepatocytes in 3D collagen gel microcavities. Lab on A Chip, 2012, 12, 1857.	3.1	22
133	Fabrication of microchannel networks in multicellular spheroids. Sensors and Actuators B: Chemical, 2014, 198, 249-254.	4.0	22
134	Fabrication of submicron proteinaceous structures by direct laser writing. Applied Physics Letters, 2015, 107, .	1.5	22
135	Longâ€Term Continuous Glucose Monitoring Using a Fluorescenceâ€Based Biocompatible Hydrogel Glucose Sensor. Advanced Healthcare Materials, 2021, 10, e2001286.	3.9	22
136	Fabrication method for out-of-plane, micro-coil by surface micromachining. Sensors and Actuators A: Physical, 2002, 97-98, 702-708.	2.0	21
137	Lipid-Coated Microdroplet Array for in Vitro Protein Synthesis. Analytical Chemistry, 2011, 83, 3186-3191.	3.2	21
138	Round-tip dielectrophoresis-based tweezers for single micro-object manipulation. Biosensors and Bioelectronics, 2013, 47, 206-212.	5.3	21
139	Self-generation of two-dimensional droplet array using oilâ€“water immiscibility and replacement. Lab on A Chip, 2018, 18, 1130-1137.	3.1	21
140	Assembly and Connection of Micropatterned Single Neurons for Neuronal Network Formation. Micromachines, 2018, 9, 235.	1.4	21
141	Artificial flagellates: Analysis of advancing motions of biflagellate micro-objects. Applied Physics Letters, 2010, 96, .	1.5	20
142	A hybrid axisymmetric flow-focusing device for monodisperse picoliter droplets. Journal of Micromechanics and Microengineering, 2011, 21, 054031.	1.5	20
143	Mobile Microplates for Morphological Control and Assembly of Individual Neural Cells. Advanced Healthcare Materials, 2016, 5, 415-420.	3.9	20
144	Biohybrid sensor for odor detection. Lab on A Chip, 2021, 21, 2643-2657.	3.1	20

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145	MEMS technology for nanobio research. Drug Discovery Today, 2008, 13, 989-996.	3.2	19
146	Biohybrid device with antagonistic skeletal muscle tissue for measurement of contractile force. Advanced Robotics, 2019, 33, 208-218.	1.1	19
147	A perfusable vascularized full-thickness skin model for potential topical and systemic applications. Biofabrication, 2021, 13, 035042.	3.7	19
148	Rapid and enhanced repolarization in sandwich-cultured hepatocytes on an oxygen-permeable membrane. Biochemical Engineering Journal, 2010, 52, 255-262.	1.8	17
149	Engineering of Pseudoislets: Effect on Insulin Secretion Activity by Cell Number, Cell Population, and Microchannel Networks. Transplantation Proceedings, 2014, 46, 1161-1165.	0.3	17
150	Enhanced glucose tolerance by intravascularly administered piceatannol in freely moving healthy rats. Biochemical and Biophysical Research Communications, 2016, 470, 753-758.	1.0	17
151	Mechanical Characterization of Microengineered Epithelial Cysts by Using Atomic Force Microscopy. Biophysical Journal, 2017, 112, 398-409.	0.2	17
152	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.	3.9	17
153	Purification-Free MicroRNA Detection by Using Magnetically Immobilized Nanopores on Liposome Membrane. Analytical Chemistry, 2018, 90, 10217-10222.	3.2	17
154	Millimeter-thick xenoislet-laden fibers as retrievable transplants mitigate foreign body reactions for long-term glycemic control in diabetic mice. Biomaterials, 2020, 255, 120162.	5.7	17
155	Fluid interfacial energy drives the emergence of three-dimensional periodic structures in micropillar scaffolds. Nature Physics, 2021, 17, 794-800.	6.5	17
156	Generation of Femtoliter Reactor Arrays within a Microfluidic Channel for Biochemical Analysis. Analytical Chemistry, 2012, 84, 6346-6350.	3.2	16
157	Liquid-filled tunable lenticular lens. Journal of Micromechanics and Microengineering, 2015, 25, 035030.	1.5	16
158	Sequential generation of asymmetric lipid vesicles using a pulsed-jetting method in rotational wells. Sensors and Actuators B: Chemical, 2018, 261, 392-397.	4.0	16
159	Formation of vesicles-in-a-vesicle with asymmetric lipid components using a pulsed-jet flow method. RSC Advances, 2019, 9, 30071-30075.	1.7	16
160	3D culture of functional human iPSC-derived hepatocytes using a core-shell microfiber. PLoS ONE, 2020, 15, e0234441.	1.1	16
161	Cell fibers promote proliferation of co-cultured cells on a dish. Scientific Reports, 2020, 10, 288.	1.6	16
162	CYK4 relaxes the bias in the off-axis motion by MKLP1 kinesin-6. Communications Biology, 2021, 4, 180.	2.0	16

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163	Wall-less liquid pathways formed with three-dimensional microring arrays. Applied Physics Letters, 2012, 101, .	1.5	15
164	Portable biohybrid odorant sensors using cell-laden collagen micropillars. Lab on A Chip, 2019, 19, 1971-1976.	3.1	15
165	Living skin on a robot. Matter, 2022, 5, 2190-2208.	5.0	15
166	An integrated system for enzymatic cleavage and electrostretching of freely-suspended single DNA molecules. Lab on A Chip, 2007, 7, 1738.	3.1	14
167	Micro-patterning of phosphorylcholine-based polymers in a microfluidic channel. Sensors and Actuators B: Chemical, 2010, 149, 177-183.	4.0	14
168	Formation of nano-sized lipid vesicles with asymmetric lipid components using a pulsed-jet flow method. Sensors and Actuators B: Chemical, 2021, 327, 128917.	4.0	14
169	3D printed microfluidic devices for lipid bilayer recordings. Lab on A Chip, 2022, 22, 890-898.	3.1	14
170	Electro-Optical Imaging Microscopy of Dye-Doped Artificial Lipidic Membranes. Biophysical Journal, 2009, 97, 2913-2921.	0.2	13
171	Magnetically Responsive Microflaps Reveal Cell Membrane Boundaries from Multiple Angles. Advanced Materials, 2014, 26, 2850-2856.	11.1	13
172	Quantitative analysis of cell-free synthesized membrane proteins at the stabilized droplet interface bilayer. Chemical Communications, 2018, 54, 12226-12229.	2.2	13
173	Formation of Branched and Chained Alginate Microfibers Using Theta-Glass Capillaries. Micromachines, 2018, 9, 303.	1.4	13
174	Molecular and Functional Analysis of Pore-Forming Toxin Monalysin From Entomopathogenic Bacterium Pseudomonas entomophila. Frontiers in Immunology, 2020, 11, 520.	2.2	13
175	Fusion and Fission Control of Picoliterâ€Sized Microdroplets for Changing the Solution Concentration of Microreactors. Small, 2010, 6, 2374-2377.	5.2	12
176	Electrical Access to Lipid Bilayer Membrane Microchambers for Transmembrane Analysis. Journal of Microelectromechanical Systems, 2011, 20, 797-799.	1.7	12
177	Clustering triple microbeads in a dynamic microarray for timing-controllable bead-based reactions. Microfluidics and Nanofluidics, 2013, 14, 1039-1048.	1.0	12
178	A sensitive point-of-care testing chip utilizing superabsorbent polymer for the early diagnosis of infectious disease. Sensors and Actuators B: Chemical, 2017, 240, 881-886.	4.0	12
179	Repetitive formation of optically-observable planar lipid bilayers by rotating chambers on a microaperture. Lab on A Chip, 2016, 16, 2423-2426.	3.1	11
180	A pumpless solution exchange system for nanopore sensors. Biomicrofluidics, 2019, 13, 064104.	1.2	11

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181	Hydrodynamic accumulation of small molecules and ions into cell-sized liposomes against a concentration gradient. Communications Chemistry, 2020, 3, .	2.0	11
182	Core-shell gel wires for the construction of large area heterogeneous structures with biomaterials. , 2010, , .		10
183	Uniformly-sized giant liposome formation with gentle hydration. , 2011, , .		10
184	Observation and Manipulation of a Capillary Jet in a Centrifuge-Based Droplet Shooting Device. Micromachines, 2015, 6, 1526-1533.	1.4	10
185	Flexible silicon-polymer neural probe rigidified by dissolvable insertion vehicle for high-resolution neural recording with improved duration. , 2015, , .		10
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