

Shuichi Takayama

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

72
papers

3,406
citations

31
h-index

58
g-index

77
ext. papers

3,859
ext. citations

8.4
avg. IF

5.15
L-index

#	Paper	IF	Citations
72	A guide to the organ-on-a-chip. <i>Nature Reviews Methods Primers</i> , 2022 , 2,		21
71	MISpheroid: a knowledgebase and transparency tool for minimum information in spheroid identity. <i>Nature Methods</i> , 2021 , 18, 1294-1303	21.6	4
70	A High-Throughput Distal Lung Air-Blood Barrier Model Enabled By Density-Driven Underside Epithelium Seeding. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2100879	10.1	1
69	Alginate Microencapsulation for Three-Dimensional In Vitro Cell Culture. <i>ACS Biomaterials Science and Engineering</i> , 2021 , 7, 2864-2879	5.5	12
68	Protocell arrays for simultaneous detection of diverse analytes. <i>Nature Communications</i> , 2021 , 12, 5724	17.4	5
67	One-incubation one-hour multiplex ELISA enabled by aqueous two-phase systems. <i>Analyst, The</i> , 2020 , 145, 3517-3527	5	8
66	Embracing Heterogeneity and Disorder. <i>Israel Journal of Chemistry</i> , 2019 , 59, 95-99	3.4	
65	Novel monolithic Blightly-Open doormat(SOD) valve enables efficient fabrication of highly-scalable microfluidic gas-on-gas multiplexer. <i>Sensors and Actuators B: Chemical</i> , 2019 , 297, 126776	8.5	
64	A platform for artificial intelligence based identification of the extravasation potential of cancer cells into the brain metastatic niche. <i>Lab on A Chip</i> , 2019 , 19, 1162-1173	7.2	22
63	Dispersible hydrogel force sensors reveal patterns of solid mechanical stress in multicellular spheroid cultures. <i>Nature Communications</i> , 2019 , 10, 144	17.4	52
62	Determination of Aqueous Two-Phase System Binodals and Tie-Lines by Electrowetting-on-Dielectric Droplet Manipulation. <i>ChemBioChem</i> , 2019 , 20, 270-275	3.8	1
61	DNA-Based Biomaterials for Immunoengineering. <i>Advanced Healthcare Materials</i> , 2019 , 8, e1801243	10.1	9
60	Integration of Sensors in Gastrointestinal Organoid CultureForBiological Analysis. <i>Cellular and Molecular Gastroenterology and Hepatology</i> , 2018 , 6, 123-131.e1	7.9	14
59	Budding-like division of all-aqueous emulsion droplets modulated by networks of protein nanofibrils. <i>Nature Communications</i> , 2018 , 9, 2110	17.4	58
58	Dispersible oxygen microsensors map oxygen gradients in three-dimensional cell cultures. <i>Biomaterials Science</i> , 2017 , 5, 2106-2113	7.4	31
57	Bioengineering for intestinal organoid cultures. <i>Current Opinion in Biotechnology</i> , 2017 , 47, 51-58	11.4	19
56	Dynamic simulations show repeated narrowing maximizes DNA linearization in elastomeric nanochannels. <i>Biomicrofluidics</i> , 2016 , 10, 064108	3.2	2

55	Fracture fabrication of a multi-scale channel device that efficiently captures and linearizes DNA from dilute solutions. <i>Lab on A Chip</i> , 2015 , 15, 1329-34	7.2	4
54	Formation of stable small cell number three-dimensional ovarian cancer spheroids using hanging drop arrays for preclinical drug sensitivity assays. <i>Gynecologic Oncology</i> , 2015 , 138, 181-9	4.9	85
53	Recent developments in multiplexing techniques for immunohistochemistry. <i>Expert Review of Molecular Diagnostics</i> , 2015 , 15, 1171-86	3.8	75
52	Surface-templated hydrogel patterns prompt matrix-dependent migration of breast cancer cells towards chemokine-secreting cells. <i>Acta Biomaterialia</i> , 2015 , 13, 68-77	10.8	14
51	Aqueous two-phase system-mediated antibody micropatterning enables multiplexed immunostaining of cell monolayers and tissues. <i>Biotechnology Journal</i> , 2015 , 10, 121-5	5.6	14
50	Elongation of fibers from highly viscous dextran solutions enables fabrication of rapidly dissolving drug carrying fabrics. <i>Advanced Healthcare Materials</i> , 2015 , 4, 313-9	10.1	8
49	Media additives to promote spheroid circularity and compactness in hanging drop platform. <i>Biomaterials Science</i> , 2015 , 3, 336-44	7.4	60
48	Rapid Self-Assembly of Macroscale Tissue Constructs at Biphasic Aqueous Interfaces. <i>Advanced Functional Materials</i> , 2015 , 25, 1694-1699	15.6	16
47	One-dimensional patterning of cells in silicone wells via compression-induced fracture. <i>Journal of Biomedical Materials Research - Part A</i> , 2014 , 102, 1361-9	5.4	4
46	Defined topologically-complex protein matrices to manipulate cell shape via three-dimensional fiber-like patterns. <i>Lab on A Chip</i> , 2014 , 14, 2191-201	7.2	21
45	Elevating sampling. <i>Lab on A Chip</i> , 2014 , 14, 3165-71	7.2	14
44	Pumps for microfluidic cell culture. <i>Electrophoresis</i> , 2014 , 35, 245-57	3.6	83
43	Aqueous two-phase printing of cell-containing contractile collagen microgels. <i>Biomaterials</i> , 2013 , 34, 9623-31	15.6	45
42	Microfluidic oscillators with widely tunable periods. <i>Lab on A Chip</i> , 2013 , 13, 1644-8	7.2	23
41	Microfluidic systems: a new toolbox for pluripotent stem cells. <i>Biotechnology Journal</i> , 2013 , 8, 180-91	5.6	21
40	Patchy surfaces stabilize dextran-polyethylene glycol aqueous two-phase system liquid patterns. <i>Langmuir</i> , 2013 , 29, 5508-14	4	11
39	Cell co-culture patterning using aqueous two-phase systems. <i>Journal of Visualized Experiments</i> , 2013 ,	1.6	20
38	Delivery of proteases in aqueous two-phase systems enables direct purification of stem cell colonies from feeder cell co-cultures for differentiation into functional cardiomyocytes. <i>Advanced Healthcare Materials</i> , 2013 , 2, 1440-4	10.1	11

37	Aqueous Two-Phase System Patterning of Microbubbles: Localized Induction of Apoptosis in Sonoporated Cells. <i>Advanced Functional Materials</i> , 2013 , 23, 3420-3431	15.6	12
36	Microbubbles: Aqueous Two-Phase System Patterning of Microbubbles: Localized Induction of Apoptosis in Sonoporated Cells (Adv. Funct. Mater. 27/2013). <i>Advanced Functional Materials</i> , 2013 , 23, 3366-3366	15.6	3
35	Patterning bacterial communities on epithelial cells. <i>PLoS ONE</i> , 2013 , 8, e67165	3.7	27
34	Microfluidic automation using elastomeric valves and droplets: reducing reliance on external controllers. <i>Small</i> , 2012 , 8, 2925-34	11	27
33	384 hanging drop arrays give excellent Z-factors and allow versatile formation of co-culture spheroids. <i>Biotechnology and Bioengineering</i> , 2012 , 109, 1293-304	4.9	102
32	Organs-on-a-chip: a focus on compartmentalized microdevices. <i>Annals of Biomedical Engineering</i> , 2012 , 40, 1211-27	4.7	152
31	Micro-ring structures stabilize microdroplets to enable long term spheroid culture in 384 hanging drop array plates. <i>Biomedical Microdevices</i> , 2012 , 14, 313-23	3.7	82
30	Epithelium damage and protection during reopening of occluded airways in a physiologic microfluidic pulmonary airway model. <i>Biomedical Microdevices</i> , 2011 , 13, 731-42	3.7	80
29	Precisely targeted delivery of cells and biomolecules within microchannels using aqueous two-phase systems. <i>Biomedical Microdevices</i> , 2011 , 13, 1043-51	3.7	34
28	Polymeric Aqueous Biphasic System Rehydration Facilitates High Throughput Cell Exclusion Patterning For Cell Migration Studies. <i>Advanced Functional Materials</i> , 2011 , 21, 2920-2926	15.6	35
27	Cell-Exclusion Patterning: Rehydration of Polymeric, Aqueous, Biphasic System Facilitates High Throughput Cell Exclusion Patterning for Cell Migration Studies (Adv. Funct. Mater. 15/2011). <i>Advanced Functional Materials</i> , 2011 , 21, 2919-2919	15.6	
26	Microprinted feeder cells guide embryonic stem cell fate. <i>Biotechnology and Bioengineering</i> , 2011 , 108, 2509-16	4.9	35
25	Fracture of metal coated elastomers. <i>Soft Matter</i> , 2011 , 7, 6493	3.6	44
24	Aqueous biphasic microprinting approach to tissue engineering. <i>Biomicrofluidics</i> , 2011 , 5, 13404	3.2	18
23	Single cell trapping in larger microwells capable of supporting cell spreading and proliferation. <i>Microfluidics and Nanofluidics</i> , 2010 , 8, 263-268	2.8	70
22	Patterning alginate hydrogels using light-directed release of caged calcium in a microfluidic device. <i>Biomedical Microdevices</i> , 2010 , 12, 145-51	3.7	64
21	Guided corona generates wettability patterns that selectively direct cell attachment inside closed microchannels. <i>Biomedical Microdevices</i> , 2010 , 12, 769-75	3.7	5
20	Polymeric aqueous biphasic systems for non-contact cell printing on cells: engineering heterocellular embryonic stem cell niches. <i>Advanced Materials</i> , 2010 , 22, 2628-31	24	117

19	Microfluidic endothelium for studying the intravascular adhesion of metastatic breast cancer cells. <i>PLoS ONE</i> , 2009 , 4, e5756	3.7	252
18	Quantitative inference of cellular parameters from microfluidic cell culture systems. <i>Biotechnology and Bioengineering</i> , 2009 , 103, 966-74	4.9	13
17	Timing is everything: using fluidics to understand the role of temporal dynamics in cellular systems. <i>Microfluidics and Nanofluidics</i> , 2009 , 6, 717-729	2.8	29
16	Microfeature guided skeletal muscle tissue engineering for highly organized 3-dimensional free-standing constructs. <i>Biomaterials</i> , 2009 , 30, 1150-5	15.6	128
15	Liquid and surfactant delivery into pulmonary airways. <i>Respiratory Physiology and Neurobiology</i> , 2008 , 163, 222-31	2.8	37
14	Unsteady propagation of a liquid plug in a liquid-lined straight tube. <i>Physics of Fluids</i> , 2008 , 20, 62104	4.4	45
13	Reversible on-demand cell alignment using reconfigurable microtopography. <i>Biomaterials</i> , 2008 , 29, 1705-12	15.6	79
12	DNA linearization through confinement in nanofluidic channels. <i>Analytical and Bioanalytical Chemistry</i> , 2008 , 391, 2395-409	4.4	58
11	Individually programmable cell stretching microwell arrays actuated by a Braille display. <i>Biomaterials</i> , 2008 , 29, 2646-55	15.6	99
10	Polyelectrolyte-Clay-Protein Layer Films on Microfluidic PDMS Bioreactor Surfaces for Primary Murine Bone Marrow Culture. <i>Advanced Functional Materials</i> , 2007 , 17, 2701-2709	15.6	46
9	Quantitative measurement and control of oxygen levels in microfluidic poly(dimethylsiloxane) bioreactors during cell culture. <i>Biomedical Microdevices</i> , 2007 , 9, 123-34	3.7	190
8	Microscale integrated sperm sorter. <i>Methods in Molecular Biology</i> , 2006 , 321, 227-44	1.4	16
7	Rapid Prototyping of Microstructures with Bell-Shaped Cross-Sections and Its Application to Deformation-Based Microfluidic Valves. <i>Advanced Materials</i> , 2004 , 16, 1320-1323	24	75
6	Use of Air-Liquid Two-Phase Flow in Hydrophobic Microfluidic Channels for Disposable Flow Cytometers. <i>Biomedical Microdevices</i> , 2002 , 4, 141-149	3.7	79
5	Subcellular positioning of small molecules. <i>Nature</i> , 2001 , 411, 1016	50.4	419
4	Acceptor substrate-based selective inhibition of galactosyltransferases. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1998 , 8, 3359-64	2.9	21
3	Mechanism and specificity of human alpha-1,3-fucosyltransferase V. <i>Biochemistry</i> , 1996 , 35, 11183-95	3.2	116
2	Reduction of bicyclo[3.3.1]nonane-2,8-diones with baker's yeast. <i>Bioorganic and Medicinal Chemistry</i> , 1994 , 2, 395-401	3.4	6

