Masumi Yamada

List of Publications by Year
in descending order

74 papers	3,403 citations	218677 26 h-index	168389 53 g-index
76 all docs	76 docs citations	76 times ranked	3440 citing authors

#	Article	IF	Citations
1	Pinched Flow Fractionation:Â Continuous Size Separation of Particles Utilizing a Laminar Flow Profile in a Pinched Microchannel. Analytical Chemistry, 2004, 76, 5465-5471.	6.5	634
2	Hydrodynamic filtration for on-chip particle concentration and classification utilizing microfluidics. Lab on A Chip, 2005, 5, 1233.	6.0	448
3	Continuous particle separation in a microchannel having asymmetrically arranged multiple branches. Lab on A Chip, 2005, 5, 778.	6.0	297
4	Controlled formation of heterotypic hepatic micro-organoids in anisotropic hydrogel microfibers for long-term preservation of liver-specific functions. Biomaterials, 2012, 33, 8304-8315.	11.4	227
5	Microfluidic Particle Sorter Employing Flow Splitting and Recombining. Analytical Chemistry, 2006, 78, 1357-1362.	6.5	165
6	Microfluidic synthesis of chemically and physically anisotropic hydrogel microfibers for guided cell growth and networking. Soft Matter, 2012, 8, 3122.	2.7	158
7	Microfluidic devices for size-dependent separation of liver cells. Biomedical Microdevices, 2007, 9, 637-645.	2.8	110
8	Sedimentation pinched-flow fractionation for size- and density-based particle sorting in microchannels. Microfluidics and Nanofluidics, 2011, 11, 105-110.	2.2	90
9	Hydrodynamic control of droplet division in bifurcating microchannel and its application to particle synthesis. Journal of Colloid and Interface Science, 2008, 321, 401-407.	9.4	88
10	Continuous cell partitioning using an aqueous two-phase flow system in microfluidic devices. Biotechnology and Bioengineering, 2004, 88, 489-494.	3.3	85
11	Nanoliter-Sized Liquid Dispenser Array for Multiple Biochemical Analysis in Microfluidic Devices. Analytical Chemistry, 2004, 76, 895-899.	6.5	77
12	Cell-sized condensed collagen microparticles for preparing microengineered composite spheroids of primary hepatocytes. Lab on A Chip, 2015, 15, 3941-3951.	6.0	71
13	Preparation of stripe-patterned heterogeneous hydrogel sheets using microfluidic devices for high-density coculture of hepatocytes and fibroblasts. Journal of Bioscience and Bioengineering, 2013, 116, 761-767.	2.2	68
14	Magnetophoresis-Integrated Hydrodynamic Filtration System for Size- and Surface Marker-Based Two-Dimensional Cell Sorting. Analytical Chemistry, 2013, 85, 7666-7673.	6.5	59
15	Observation of nonspherical particle behaviors for continuous shape-based separation using hydrodynamic filtration. Biomicrofluidics, 2011, 5, 24103.	2.4	56
16	Slanted, asymmetric microfluidic lattices as size-selective sieves for continuous particle/cell sorting. Lab on A Chip, 2017, 17, 304-314.	6.0	54
17	A microfluidic flow distributor generating stepwise concentrations for high-throughput biochemical processing. Lab on A Chip, 2006, 6, 179.	6.0	50
18	Patterned hydrogel microfibers prepared using multilayered microfluidic devices for guiding network formation of neural cells. Biofabrication, 2014, 6, 035011.	7.1	46

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19	Millisecond treatment of cells using microfluidic devices via two-step carrier-medium exchange. Lab on A Chip, 2008, 8, 772.	6.0	43
20	Development of a perfusable 3D liver cell cultivation system via bundling-up assembly of cell-laden microfibers. Journal of Bioscience and Bioengineering, 2018, 126, 111-118.	2.2	38
21	Fabrication of multilayered vascular tissues using microfluidic agarose hydrogel platforms. Biotechnology Journal, 2016, 11, 1415-1423.	3.5	36
22	Microfluidic production of single micrometer-sized hydrogel beads utilizing droplet dissolution in a polar solvent. Biomicrofluidics, 2013, 7, 54120.	2.4	35
23	Facile fabrication processes for hydrogel-based microfluidic devices made of natural biopolymers. Biomicrofluidics, 2014, 8, 024115.	2.4	32
24	Size effect of engineered islets prepared using microfabricated wells on islet cell function and arrangement. Heliyon, 2016, 2, e00129.	3.2	30
25	Generation of uniform-size droplets by multistep hydrodynamic droplet division in microfluidic circuits. Microfluidics and Nanofluidics, 2011, 11, 601-610.	2.2	26
26	Micropassage-embedding composite hydrogel fibers enable quantitative evaluation of cancer cell invasion under 3D coculture conditions. Lab on A Chip, 2018, 18, 1378-1387.	6.0	26
27	Collagen Microparticle-Mediated 3D Cell Organization: A Facile Route to Bottom-up Engineering of Thick and Porous Tissues. ACS Biomaterials Science and Engineering, 2017, 3, 2144-2154.	5.2	22
28	Formation of Monodisperse Hierarchical Lipid Particles Utilizing Microfluidic Droplets in a Nonequilibrium State. Langmuir, 2015, 31, 2334-2341.	3.5	21
29	Blood cell classification utilizing hydrodynamic filtration. Electronics and Communications in Japan, 2011, 94, 1-6.	0.5	20
30	One-step synthesis of spherical/nonspherical polymeric microparticles using non-equilibrium microfluidic droplets. RSC Advances, 2014, 4, 13557.	3.6	20
31	A numbering-up strategy of hydrodynamic microfluidic filters for continuous-flow high-throughput cell sorting. Lab on A Chip, 2019, 19, 1828-1837.	6.0	20
32	Rapid Quantification of Disease-Marker Proteins Using Continuous-Flow Immunoseparation in a Nanosieve Fluidic Device. Analytical Chemistry, 2009, 81, 7067-7074.	6.5	19
33	Micropatterning of Hydrogels on Locally Hydrophilized Regions on PDMS by Stepwise Solution Dipping and in Situ Gelation. Langmuir, 2012, 28, 14073-14080.	3.5	17
34	Microfluidic counterflow centrifugal elutriation system for sedimentation-based cell separation. Microfluidics and Nanofluidics, 2013, 14, 1049-1057.	2.2	17
35	Direct Observation of Splitting in Oil-In-Water-In-Oil Emulsion Droplets via a Microchannel Mimicking Membrane Pores. Langmuir, 2017, 33, 14087-14092.	3.5	17
36	Multiphase Microfluidic Processes to Produce Alginate-Based Microparticles and Fibers. Journal of Chemical Engineering of Japan, 2018, 51, 318-330.	0.6	17

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37	Isolation of cell nuclei in microchannels by short-term chemical treatment via two-step carrier medium exchange. Biomedical Microdevices, 2012, 14, 751-757.	2.8	16
38	Thermally imprinted microcone structure-assisted lateral-flow immunoassay platforms for detecting disease marker proteins. Analyst, The, 2019, 144, 1519-1526.	3.5	16
39	One-Step Formation of Microporous Hydrogel Sponges Encapsulating Living Cells by Utilizing Bicontinuous Dispersion of Aqueous Polymer Solutions. ACS Applied Bio Materials, 2019, 2, 2237-2245.	4.6	13
40	A droplet-based microfluidic process to produce yarn-ball-shaped hydrogel microbeads. RSC Advances, 2013, 3, 12299.	3.6	12
41	Microfluidic System Enabling Multistep Tuning of Extraction Time Periods for Kinetic Analysis of Droplet-Based Liquidâ€“Liquid Extraction. Analytical Chemistry, 2016, 88, 5637-5643.	6.5	10
42	Hydrodynamic Microparticle Separation Mechanism Using Three-Dimensional Flow Profiles in Dual-Depth and Asymmetric Lattice-Shaped Microchannel Networks. Micromachines, 2019, 10, 425.	2.9	10
43	Enhanced Immunoadsorption on Imprinted Polymeric Microstructures with Nanoengineered Surface Topography for Lateral Flow Immunoassay Systems. Analytical Chemistry, 2019, 91, 13377-13382.	6.5	10
44	PDMS microstencil plate-supported fabrication of ultra-thin, condensed ECM membranes for separated cell coculture on both surfaces. Sensors and Actuators B: Chemical, 2019, 287, 486-495.	7.8	10
45	Sacrificial Alginate-Assisted Microfluidic Engineering of Cell-Supportive Protein Microfibers for Hydrogel-Based Cell Encapsulation. ACS Omega, 2020, 5, 21641-21650.	3.5	9
46	Formation of Cell Aggregates Using Microfabricated Hydrogel Chambers for Assembly into Larger Tissues. Journal of Robotics and Mechatronics, 2013, 25, 682-689.	1.0	9
47	Polyanion-induced, microfluidic engineering of fragmented collagen microfibers for reconstituting extracellular environments of 3D hepatocyte culture. Materials Science and Engineering C, 2021, 129, 112417.	7.3	8
48	Assembly of carbon nanotubes into microparticles with tunable morphologies using droplets in a non-equilibrium state. RSC Advances, 2017, 7, 17773-17780.	3.6	6
49	Fabrication of vascular tissue models by assembling multiple cell types inside hydrogel microchannels. , 2012, , .		5
50	A new method for continuous sorting of cells/particles using lattice-shaped dual-depth microchannels. , 2015, , .		4
51	Adult hepatocytes direct liver organogenesis through non-parenchymal cell recruitment in the kidney. Journal of Hepatology, 2018, 68, 744-753.	3.7	4
52	Formation of pressurizable hydrogel-based vascular tissue models by selective gelation in composite PDMS channels. RSC Advances, 2019, 9, 9136-9144.	3.6	4
53	Formation of 3D tissues of primary hepatocytes using fibrillized collagen microparticles as intercellular binders. Journal of Bioscience and Bioengineering, 2022, 133, 265-272.	2.2	3
54	Manipulation of cells and cell spheroids using collagen hydrogel microbeads prepared by microfluidic devices. , 2012, , .		2

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55	Morphology control of protein microparticles produced using microfluidic droplets in a non-equilibrium state. , 2015, , .		2
56	Laborless, Automated Microfluidic Tandem Cell Processor for Visualizing Intracellular Molecules of Mammalian Cells. Analytical Chemistry, 2020, 92, 2580-2588.	6.5	2
57	Development of microfluidic cell nucleus separator employing rapid chemical treatment. , 2010, , .		1
58	Fabrication of functional hydrogel microbeads utilizing non-equilibrium microfluidics for biological applications. , 2011, , .		1
59	Microfluidics and microfabrication technology for highly precise cell manipulation and cultivation. , 2011, , .		1
60	Shape control of cell-embedding hydrogel microstructures utilizing non-equilibrium aqueous two-phase systems. , 2014, , .		1
61	One-step microfluidic spinning of collagen microfibers and their application to cell cultivation. , 2015, , .		1
62	Control of invasion direction of cancer cells using hierarchically patterned hydrogel sheets. , 2017, , .		1
63	Microengineering of Collagen Hydrogels Integrated into Microfluidic Devices for Perfusion Culture of Mammalian Cells. MATEC Web of Conferences, 2021, 333, 07006.	0.2	1
64	Preparation of Microporous Hydrogel Sponges for 3D Perfusion Culture of Mammalian Cells. MATEC Web of Conferences, 2021, 333, 07004.	0.2	1
65	Process simplification and structure design of parallelized microslit isolator for physical property-based capture of tumor cells. Analyst, The, 2022, 147, 1622-1630.	3.5	1
66	Rapid enumeration of bacterial cells in drinking water using a microfluidic device. , 2006, , .		0
67	Fabrication of Complex Hydrogel Materials by Utilizing Microfluidics and Micromolding. Materials Research Society Symposia Proceedings, 2012, 1415, 157.	0.1	0
68	Fluidic preparation of patterned hydrogel fibers using micronozzle-array devices for neural cell guidance. , 2012, , .		0
69	Microfabricated complex hydrogel fibers for quantitative evaluation of cancer cell invasion in in vivo tissue-like environments. , 2013, , .		0
70	Assembly techniques for artificial small diameter blood vessel structures. , 2013, , .		0
71	In vitro assessment of osteoblastic differentiation of encapsulated stromal cells in alginate/octacalcium phosphate. , 2014, , .		0
72	Asymmetric lattice-shaped microchannel structures for continuous size-dependent cell sorting. , 2014, , .		0

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73	Microfluidics-based wet spinning of protein microfibers as solid scaffolds for 3D cell cultivation. , 2016, , .		0
74	Preparation of Functional Microparticles Using Rapidly Shrinking Droplets in Microfluidic Channels. Journal of the Society of Powder Technology, Japan, 2019, 56, 398-402.	0.1	0