Yo Tanaka

List of Publications by Year in descending order

144 papers	3,995 citations	126858 33 h-index	138417 58 g-index
147 all docs	147 docs citations	147 times ranked	4489 citing authors

#	Article	IF	Citations
1	Intelligent Image-Activated Cell Sorting. Cell, 2018, 175, 266-276.e13.	13.5	395
2	GaN Photonic-Crystal Surface-Emitting Laser at Blue-Violet Wavelengths. Science, 2008, 319, 445-447.	6.0	358
3	An actuated pump on-chip powered by cultured cardiomyocytes. Lab on A Chip, 2006, 6, 362.	3.1	195
4	A micro-spherical heart pump powered by cultured cardiomyocytes. Lab on A Chip, 2007, 7, 207-212.	3.1	170
5	Demonstration of a PDMS-based bio-microactuator using cultured cardiomyocytes to drive polymer micropillars. Lab on A Chip, 2006, 6, 230.	3.1	158
6	Label-free chemical imaging flow cytometry by high-speed multicolor stimulated Raman scattering. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15842-15848.	3.3	130
7	Biological cells on microchips: New technologies and applications. Biosensors and Bioelectronics, 2007, 23, 449-458.	5.3	129
8	Recent advances in microfluidic cell sorting systems. Sensors and Actuators B: Chemical, 2019, 282, 268-281.	4.0	124
9	Non-contact photothermal control of enzyme reactions on a microchip by using a compact diode laser. Journal of Chromatography A, 2000, 894, 45-51.	1.8	96
10	Demonstration of a bio-microactuator powered by cultured cardiomyocytes coupled to hydrogel micropillars. Sensors and Actuators B: Chemical, 2006, 119, 345-350.	4.0	87
11	Protocadherin-17 Mediates Collective Axon Extension by Recruiting Actin Regulator Complexes to Interaxonal Contacts. Developmental Cell, 2014, 30, 673-687.	3.1	85
12	Ultrasensitive Single Cell Metabolomics by Capillary Electrophoresisâ€“Mass Spectrometry with a Thin-Walled Tapered Emitter and Large-Volume Dual Sample Preconcentration. Analytical Chemistry, 2019, 91, 10564-10572.	3.2	78
13	Establishment of a heart-on-a-chip microdevice based on human iPS cells for the evaluation of human heart tissue function. Scientific Reports, 2020, 10, 19201.	1.6	71
14	Sexual Selection Enhances Population Extinction in a Changing Environment. Journal of Theoretical Biology, 1996, 180, 197-206.	0.8	60
15	Highâ€throughput, labelâ€free, singleâ€cell, microalgal lipid screening by machineâ€learningâ€equipped optofluidic timeâ€stretch quantitative phase microscopy. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2017, 91, 494-502.	1.1	60
16	Culture and Leukocyte Adhesion Assay of Human Arterial Endothelial Cells in a Glass Microchip. Analytical Sciences, 2007, 23, 261-266.	0.8	53
17	Sheathless Inertial Focusing Chip Combining a Spiral Channel with Periodic Expansion Structures for Efficient and Stable Particle Sorting. Analytical Chemistry, 2020, 92, 1833-1841.	3.2	53
18	An all-glass 12 Î¼m ultra-thin and flexible micro-fluidic chip fabricated by femtosecond laser processing. Lab on A Chip, 2016, 16, 2427-2433.	3.1	50

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19	Glass based micro total analysis systems: Materials, fabrication methods, and applications. Sensors and Actuators B: Chemical, 2021, 339, 129859.	4.0	49
20	Intelligent whole-blood imaging flow cytometry for simple, rapid, and cost-effective drug-susceptibility testing of leukemia. Lab on A Chip, 2019, 19, 2688-2698.	3.1	48
21	Acceleration of an Enzymatic Reaction in a Microchip.. Analytical Sciences, 2001, 17, 809-810.	0.8	47
22	Mechanical properties of single cells: Measurement methods and applications. Biotechnology Advances, 2020, 45, 107648.	6.0	47
23	Profiling of N-linked glycans from 100 cells by capillary electrophoresis with large-volume dual preconcentration by isotachophoresis and stacking. Journal of Chromatography A, 2018, 1565, 138-144.	1.8	46
24	Microchip-based cellular biochemical systems for practical applications and fundamental research: from microfluidics to nanofluidics. Analytical and Bioanalytical Chemistry, 2012, 402, 99-107.	1.9	41
25	Earthworm muscle driven bio-micropump. Sensors and Actuators B: Chemical, 2017, 242, 1186-1192.	4.0	40
26	A Peristaltic Pump Integrated on a 100% Glass Microchip Using Computer Controlled Piezoelectric Actuators. Micromachines, 2014, 5, 289-299.	1.4	39
27	A palmtopâ€sized microfluidic cell culture system driven by a miniaturized infusion pump. Electrophoresis, 2012, 33, 1729-1735.	1.3	38
28	An efficient surface modification using 2-methacryloyloxyethyl phosphorylcholine to control cell attachment via photochemical reaction in a microchannel. Lab on A Chip, 2010, 10, 1937.	3.1	37
29	Microcasting with agarose gel via degassed polydimethylsiloxane molds for repellency-guided cell patterning. RSC Advances, 2016, 6, 54754-54762.	1.7	36
30	In situ assembly, regeneration and plasmonic immunosensing of a Au nanorod monolayer in a closed-surface flow channel. Lab on A Chip, 2011, 11, 3299.	3.1	35
31	Large-Scale Integration of All-Glass Valves on a Microfluidic Device. Micromachines, 2016, 7, 83.	1.4	35
32	Optofluidic time-stretch quantitative phase microscopy. Methods, 2018, 136, 116-125.	1.9	35
33	Nanofluidic Devices and Applications for Biological Analyses. Analytical Chemistry, 2021, 93, 332-349.	3.2	35
34	Single-cell attachment and culture method using a photochemical reaction in a closed microfluidic system. Biomicrofluidics, 2010, 4, 032208.	1.2	33
35	Electric actuating valves incorporated into an all glass-based microchip exploiting the flexibility of ultra thin glass. RSC Advances, 2013, 3, 10213.	1.7	33
36	Cultivation and recovery of vascular endothelial cells in microchannels of a separable micro-chemical chip. Biomaterials, 2011, 32, 2459-2465.	5.7	32

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37	Demonstration of a bio-microactuator powered by vascular smooth muscle cells coupled to polymer micropillars. Lab on A Chip, 2008, 8, 58-61.	3.1	31
38	Single-Molecule DNA Patterning and Detection by Padlock Probing and Rolling Circle Amplification in Microchannels for Analysis of Small Sample Volumes. Analytical Chemistry, 2011, 83, 3352-3357.	3.2	28
39	An active valve incorporated into a microchip using a high strain electroactive polymer. Sensors and Actuators B: Chemical, 2013, 184, 163-169.	4.0	27
40	Isolating Single Euglena gracilis Cells by Glass Microfluidics for Raman Analysis of Paramylon Biogenesis. Analytical Chemistry, 2019, 91, 9631-9639.	3.2	27
41	Microscopic impedance cytometry for quantifying single cell shape. Biosensors and Bioelectronics, 2021, 193, 113521.	5.3	27
42	A simple and reversible glassâ€“glass bonding method to construct a microfluidic device and its application for cell recovery. Lab on A Chip, 2021, 21, 2244-2254.	3.1	25
43	Micro-patterned agarose gel devices for single-cell high-throughput microscopy of E. coli cells. Scientific Reports, 2017, 7, 17750.	1.6	23
44	Fluid driving system for a micropump by differentiating iPS cells into cardiomyocytes on a tent-like structure. Sensors and Actuators B: Chemical, 2015, 210, 267-272.	4.0	22
45	Ultra-thin glass sheet integrated transparent diaphragm pressure transducer. Sensors and Actuators A: Physical, 2017, 263, 102-112.	2.0	22
46	Simple agarose micro-confinement array and machine-learning-based classification for analyzing the patterned differentiation of mesenchymal stem cells. PLoS ONE, 2017, 12, e0173647.	1.1	22
47	Rotation of Biological Cells: Fundamentals and Applications. Engineering, 2022, 10, 110-126.	3.2	22
48	In-situ detection based on the biofilm hydrophilicity for environmental biofilm formation. Scientific Reports, 2019, 9, 8070.	1.6	21
49	Effects of Flowâ€Induced Microfluidic Chip Wall Deformation on Imaging Flow Cytometry. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2020, 97, 909-920.	1.1	20
50	Recent advances in microfluidic devices for single-cell cultivation: methods and applications. Lab on A Chip, 2022, 22, 1438-1468.	3.1	20
51	Fabrication of ultra-thin glass sheet by weight-controlled load-assisted precise thermal stretching. Sensors and Actuators A: Physical, 2021, 321, 112604.	2.0	18
52	Time Sequential Single-Cell Patterning with High Efficiency and High Density. Sensors, 2018, 18, 3672.	2.1	17
53	An ultra-small fluid oscillation unit for pumping driven by self-organized three-dimensional bridging of pulsatile cardiomyocytes on elastic micro-piers. Sensors and Actuators B: Chemical, 2019, 293, 256-264.	4.0	17
54	Rapid screening swine foot-and-mouth disease virus using micro-ELISA system. Lab on A Chip, 2011, 11, 2153.	3.1	16

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55	Basic Structure and Cell Culture Condition of a Bioartificial Renal Tubule on Chip towards a Cell-based Separation Microdevice. Analytical Sciences, 2011, 27, 907-912.	0.8	16
56	Fluid actuation for a bio-micropump powered by previously frozen cardiomyocytes directly seeded on a diagonally stretched thin membrane. Sensors and Actuators B: Chemical, 2011, 156, 494-498.	4.0	16
57	Ultrathin glass filter fabricated by femtosecond laser processing for high-throughput microparticle filtering. Applied Physics Express, 2016, 9, 066702.	1.1	16
58	Insect Muscular Tissue-Powered Swimming Robot. Actuators, 2019, 8, 30.	1.2	16
59	Enhancement in acoustic focusing of micro and nanoparticles by thinning a microfluidic device. Royal Society Open Science, 2019, 6, 181776.	1.1	16
60	Microchip-based Plasma Separation from Whole Blood via Axial Migration of Blood Cells. Analytical Sciences, 2011, 27, 1173-1178.	0.8	15
61	A method of packaging molecule/cell-patterns in an open space into a glass microfluidic channel by combining pressure-based low/room temperature bonding and fluorosilane patterning. Chemical Communications, 2017, 53, 11193-11196.	2.2	15
62	A chemical micropump actuated by self-oscillating polymer gel. Sensors and Actuators B: Chemical, 2021, 337, 129769.	4.0	15
63	Shape-based separation of drug-treated Escherichia coli using viscoelastic microfluidics. Lab on A Chip, 2022, 22, 2801-2809.	3.1	15
64	An electric generator using living Torpedo electric organs controlled by fluid pressure-based alternative nervous systems. Scientific Reports, 2016, 6, 25899.	1.6	14
65	Embryonic body culturing in an all-glass microfluidic device with laser-processed 4ÂÎ¼m thick ultra-thin glass sheet filter. Biomedical Microdevices, 2017, 19, 85.	1.4	14
66	High-speed micro-particle manipulation in a microfluidic chip by directional femtosecond laser impulse. Sensors and Actuators A: Physical, 2019, 297, 111566.	2.0	14
67	Area cooling enables thermal positioning and manipulation of single cells. Lab on A Chip, 2020, 20, 3733-3743.	3.1	13
68	Dual-frequency impedance assays for intracellular components in microalgal cells. Lab on A Chip, 2022, 22, 550-559.	3.1	13
69	Analysis of Long-term Morphological Changes of Micro-patterned Molecules and Cells on PDMS and Glass Surfaces. Analytical Sciences, 2017, 33, 723-725.	0.8	12
70	Combining microchip and cell technology for creation of novel biodevices. Analytical and Bioanalytical Chemistry, 2009, 393, 23-29.	1.9	11
71	Ultrasensitive detection of nucleic acids based on dually enhanced fluorescence polarization. Analyst, The, 2018, 143, 3560-3569.	1.7	11
72	Userâ€friendly cell patterning methods using a polydimethylsiloxane mold with microchannels. Development Growth and Differentiation, 2020, 62, 167-176.	0.6	11

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73	Human iPS cell derived RPE strips for secure delivery of graft cells at a target place with minimal surgical invasion. Scientific Reports, 2021, 11, 21421.	1.6	11
74	Development of a Microfluidic Platform for Single-cell Secretion Analysis Using a Direct Photoactive Cell-attaching Method. Analytical Sciences, 2011, 27, 973-978.	0.8	10
75	Micropatterning of biomolecules on a glass substrate in fused silica microchannels by using photolabile linker-based surface activation. Mikrochimica Acta, 2012, 179, 49-55.	2.5	10
76	Simple bilayer on-chip valves using reversible sealability of PDMS. RSC Advances, 2015, 5, 5237-5243.	1.7	10
77	Impedance-based tracking of the loss of intracellular components in microalgae cells. Sensors and Actuators B: Chemical, 2022, 358, 131514.	4.0	10
78	Selective cell capture and analysis using shallow antibody-coated microchannels. Biomicrofluidics, 2012, 6, 044117.	1.2	9
79	Property Investigation of Replaceable PDMS Membrane as an Actuator in Microfluidic Device. Actuators, 2018, 7, 68.	1.2	9
80	Easy and efficient production of completely embryonic-stem-cell-derived mice using a micro-aggregation device. PLoS ONE, 2018, 13, e0203056.	1.1	9
81	Assembly and Simple Demonstration of a Micropump Installing PDMS-Based Thin Membranes as Flexible Micro Check Valves. Journal of Biomedical Nanotechnology, 2009, 5, 516-520.	0.5	8
82	Integration of a Reconstituted Cell-free Protein-synthesis System on a Glass Microchip. Analytical Sciences, 2015, 31, 67-71.	0.8	8
83	Vapor-based micro/nano-partitioning of fluoro-functional group immobilization for long-term stable cell patterning. RSC Advances, 2016, 6, 96306-96313.	1.7	8
84	A valve powered by earthworm muscle with both electrical and 100% chemical control. Scientific Reports, 2019, 9, 8042.	1.6	8
85	Simple Isolation of Single Cell: Thin Glass Microfluidic Device for Observation of Isolated Single Euglena gracilis Cells. Analytical Sciences, 2019, 35, 577-583.	0.8	8
86	Hydrodynamic particle focusing enhanced by femtosecond laser deep grooving at low Reynolds numbers. Scientific Reports, 2021, 11, 1652.	1.6	8
87	Thin glass micro-dome structure based microlens fabricated by accurate thermal expansion of microcavities. Applied Physics Letters, 2019, 115, .	1.5	7
88	Assessment of the electrical penetration of cell membranes using four-frequency impedance cytometry. Microsystems and Nanoengineering, 2022, 8, .	3.4	7
89	Anisotropies in microstructures and critical current densities in superconducting V3Ga tapes. Journal of the Less Common Metals, 1974, 37, 177-180.	0.9	6
90	Characterization of the Hydration Process of Phospholipid-Mimetic Polymers Using Air-Injection-Mediated Liquid Exclusion Methods. Langmuir, 2020, 36, 5626-5632.	1.6	6

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91	Flow analysis on microcasting with degassed polydimethylsiloxane micro-channels for cell patterning with cross-linked albumin. PLoS ONE, 2020, 15, e0232518.	1.1	6
92	Accurate rotation of ultra-thin glass chamber for single-cell multidirectional observation. Applied Physics Express, 2020, 13, 026502.	1.1	6
93	Specific capture and intact release of breast cancer cells using a twin-layer vein-shaped microchip with a self-assembled surface. Nanoscale, 2021, 13, 17765-17774.	2.8	6
94	A sub-population of Dictyostelium discoideum cells shows extremely high sensitivity to cAMP for directional migration. Biochemical and Biophysical Research Communications, 2021, 554, 131-137.	1.0	6
95	Focusing of Particles in a Microchannel with Laser Engraved Groove Arrays. Biosensors, 2021, 11, 263.	2.3	6
96	A Microfluidic Platform Based on Robust Gas and Liquid Exchange for Long-term Culturing of Explanted Tissues. Analytical Sciences, 2019, 35, 1141-1147.	0.8	5
97	Micro/nanoparticle separation via curved nano-gap device with enhanced size resolution. Journal of Chromatography A, 2016, 1455, 172-177.	1.8	4
98	Contamination-free non-contact wettability assessment system. ROBOMECH Journal, 2017, 4, .	0.9	4
99	Oocyte allâ€surfacesâ€™ imaging method using microâ€scale rotational flow. Micro and Nano Letters, 2018, 13, 306-311.	0.6	4
100	In situ measurement of cell stiffness of Arabidopsis roots growing on a glass micropillar support by atomic force microscopy. Plant Biotechnology, 2020, 37, 417-422.	0.5	4
101	Continuous 3D particles manipulation based on cooling thermal convection. Sensors and Actuators B: Chemical, 2022, 358, 131511.	4.0	4
102	Bio-actuated microvalve in microfluidics using sensing and actuating function of Mimosa pudica. Scientific Reports, 2022, 12, .	1.6	4
103	Pneumatically Actuated Thin Glass Microlens for On-Chip Multi-Magnification Observations. Actuators, 2020, 9, 73.	1.2	3
104	FPGA-Assisted Nonparallel Impedance Cytometry as Location Sensor of Single Particle. , 2021, , .		3
105	The cascade CLOS broadcast switching network - a new atm switching network which is multiconnection non-blocking. , 0, , .		2
106	Horizontal connection method for glass microfluidic devices. Micro and Nano Letters, 2020, 15, 333-338.	0.6	2
107	A gas flow velocity sensor fabricated with femtosecond laser using 4 Î¼m ultra-thin glass sheet. Applied Physics Express, 2022, 15, 036502.	1.1	2
108	Establishment of a Confluent Cardiomyocyte Culture in a Cylindrical Microchannel. Analytical Sciences, 2011, 27, 957-960.	0.8	1

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109	Electric generation using electric organs of electric rays by chemical stimulation. , 2015, , .		1
110	High-throughput label-free screening of euglena gracilis with optofluidic time-stretch quantitative phase microscopy. , 2017, , .		1
111	Atmospheric-Operable 3D Printed Walking Bio-Robot Powered by Muscle-Tissue of Earthworm. , 2018, , .		1
112	Vacuum microcasting of 2-methacryloyloxyethyl phosphorylcholine polymer for stable cell patterning. BioTechniques, 2020, 69, 171-177.	0.8	1
113	In Situ Guided Neurite Outgrowth by Femtosecond Laser Processing in a Microfluidic Device. , 2021, , .		1
114	Development of thin glass-based biconvex microlens fabrication technique via thermal expansion. , 2021, , .		1
115	On-chip integration of ultra-thin glass cantilever for physical property measurement activated by femtosecond laser impulse. , 2020, , .		1
116	Development of Microdevices Combining Machine and Life Systems. Journal of Robotics and Mechatronics, 2022, 34, 288-290.	0.5	1
117	Nano liquid handling with bio-actuated micro heart pump powered by cardiomyocytes sheet. , 0, , .		0
118	A round robin test for pre-standardization of a saddle-shaped pickup coil method to measure AC losses in Bi-2223 Ag-sheathed tapes. Physica C: Superconductivity and Its Applications, 2008, 468, 1787-1791.	0.6	0
119	Development of a Micro-Potentiometric Sensor for the Microchip Analysis of Alkali Ions. Analytical Sciences, 2009, 25, 1397-1401.	0.8	0
120	Simple valves on a pdms microchip bonded via patterned oxygen plasma. , 2015, , .		0
121	Investigation of scaffold materials for a bio-micropump using IPS cell derived cardiomyocytes. , 2015, , .		0
122	Agarose micro-cast for the patterned differentiation of mesenchymal stem cells. , 2016, , .		0
123	Light controlled integratable single cell micro rotary vane pump. , 2017, , .		0
124	An ensemble of agarose microwells and AI for understanding hMSC differentiation patterns. , 2017, , .		0
125	Open-window in microfluidic chip with ultra-thin glass for single cell isolation femtosecond laser irradiation. , 2017, , .		0
126	Non-contact wettability assessment for detecting cellular behaviors. , 2017, , .		0

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127	Imaging method of oocyte by using a micro-scale rotational flow. , 2017, , .		0
128	Development of Integrated Microfluidic Devices for Next-generation Bioanalysis. Bunseki Kagaku, 2017, 66, 487-494.	0.1	0
129	A foot-treding type electric power generator using micro/nano channels in a porous glass filter. , 2018, , .		0
130	Rapid and easy-to-use ES cell manipulation device with a small groove near culturing wells. BMC Research Notes, 2020, 13, 453.	0.6	0
131	Movement tracing and analysis of benthic sting ray (Dasyatis akajei) and electric ray (Narke japonica) toward seabed exploration. SN Applied Sciences, 2020, 2, 1.	1.5	0
132	Control and design of biosystems. Development Growth and Differentiation, 2020, 62, 149-149.	0.6	0
133	Femtosecond Laser-Induced Response Wave Measuring Method for Single Cell Characterization. , 2021, , .		0
134	A Contactless Switch for Cell Sorting by Area cooling**Resrach supported by Foundation.. , 2021, , .		0
135	Femtosecond Laser Multi-Pulse Irradiation for High Through-Put Mult-Selectable Partcile Sorting. , 2021, , .		0
136	Fabrication of Ultra-Thin Glass Sheet for On-Chip Glass Pressure Sensor. , 2021, , .		0
137	Fusion of life and machine to create novel principle devices. , 2019, , .		0
138	Single-Cell Cultivation Utilizing Microfluidic Systems. , 2022, , 287-310.		0
139	Single-Cell Cultivation Utilizing Microfluidic Systems. , 2020, , 1-24.		0
140	Microactuators Driven by Smooth Muscle Cells. Journal of the Institute of Electrical Engineers of Japan, 2020, 140, 591-594.	0.0	0
141	Title is missing!. , 2020, 15, e0232518.		0
142	Title is missing!. , 2020, 15, e0232518.		0
143	Title is missing!. , 2020, 15, e0232518.		0
144	Title is missing!. , 2020, 15, e0232518.		0