Yo Tanaka

List of Publications by Citations

119 papers	2,629 citations	28 h-index	48 g-index
147 ext. papers	3,414 ext. citations	5.7 avg, IF	5.24 L-index

#	Paper	IF	Citations
119	GaN photonic-crystal surface-emitting laser at blue-violet wavelengths. *Science*, **2008**, 319, 445-7	33.3	257
118	Intelligent Image-Activated Cell Sorting. *Cell*, **2018**, 175, 266-276.e13	56.2	241
117	An actuated pump on-chip powered by cultured cardiomyocytes. *Lab on A Chip*, **2006**, 6, 362-8	7.2	151
116	A micro-spherical heart pump powered by cultured cardiomyocytes. *Lab on A Chip*, **2007**, 7, 207-12	7.2	144
115	Demonstration of a PDMS-based bio-microactuator using cultured cardiomyocytes to drive polymer micropillars. *Lab on A Chip*, **2006**, 6, 230-5	7.2	133
114	Biological cells on microchips: new technologies and applications. *Biosensors and Bioelectronics*, **2007**, 23, 449-58	11.8	114
113	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	11.5	78
112	Non-contact photothermal control of enzyme reactions on a microchip by using a compact diode laser. *Journal of Chromatography A*, **2000**, 894, 45-51	4.5	78
111	Demonstration of a bio-microactuator powered by cultured cardiomyocytes coupled to hydrogel micropillars. *Sensors and Actuators B: Chemical*, **2006**, 119, 345-350	8.5	64
110	Recent advances in microfluidic cell sorting systems. *Sensors and Actuators B: Chemical*, **2019**, 282, 268-281	7.5	64
109	Protocadherin-17 mediates collective axon extension by recruiting actin regulator complexes to interaxonal contacts. *Developmental Cell*, **2014**, 30, 673-87	10.2	62
108	Sexual selection enhances population extinction in a changing environment. *Journal of Theoretical Biology*, **1996**, 180, 197-206	2.3	44
107	Culture and leukocyte adhesion assay of human arterial endothelial cells in a glass microchip. *Analytical Sciences*, **2007**, 23, 261-6	1.7	43
106	High-throughput, label-free, single-cell, microalgal lipid screening by machine-learning-equipped optofluidic time-stretch quantitative phase microscopy. *Cytometry Part A: the Journal of the International Society for Analytical Cytology*, **2017**, 91, 494-502	4.6	42
105	Acceleration of an enzymatic reaction in a microchip. *Analytical Sciences*, **2001**, 17, 809-10	1.7	40
104	Ultrasensitive Single Cell Metabolomics by Capillary Electrophoresis-Mass Spectrometry with a Thin-Walled Tapered Emitter and Large-Volume Dual Sample Preconcentration. *Analytical Chemistry*, **2019**, 91, 10564-10572	7.8	37
103	Microchip-based cellular biochemical systems for practical applications and fundamental research: from microfluidics to nanofluidics. *Analytical and Bioanalytical Chemistry*, **2012**, 402, 99-107	4.4	37

102	In situ assembly, regeneration and plasmonic immunosensing of a Au nanorod monolayer in a closed-surface flow channel. *Lab on A Chip*, **2011**, 11, 3299-304	7.2	34
101	An all-glass 12 μm ultra-thin and flexible micro-fluidic chip fabricated by femtosecond laser processing. *Lab on A Chip*, **2016**, 16, 2427-33	7.2	34
100	An efficient surface modification using 2-methacryloyloxyethyl phosphorylcholine to control cell attachment via photochemical reaction in a microchannel. *Lab on A Chip*, **2010**, 10, 1937-45	7.2	33
99	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	4.5	33
98	Single-cell attachment and culture method using a photochemical reaction in a closed microfluidic system. *Biomicrofluidics*, **2010**, 4, 32208	3.2	32
97	A Peristaltic Pump Integrated on a 100% Glass Microchip Using Computer Controlled Piezoelectric Actuators. *Micromachines*, **2014**, 5, 289-299	3.3	30
96	A palmtop-sized microfluidic cell culture system driven by a miniaturized infusion pump. *Electrophoresis*, **2012**, 33, 1729-35	3.6	30
95	Earthworm muscle driven bio-micropump. *Sensors and Actuators B: Chemical*, **2017**, 242, 1186-1192	8.5	29
94	Large-Scale Integration of All-Glass Valves on a Microfluidic Device. *Micromachines*, **2016**, 7,	3.3	29
93	Microcasting with agarose gel via degassed polydimethylsiloxane molds for repellency-guided cell patterning. *RSC Advances*, **2016**, 6, 54754-54762	3.7	28
92	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	4.9	28
91	Optofluidic time-stretch quantitative phase microscopy. *Methods*, **2018**, 136, 116-125	4.6	27
90	Electric actuating valves incorporated into an all glass-based microchip exploiting the flexibility of ultra thin glass. *RSC Advances*, **2013**, 3, 10213	3.7	27
89	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, 3352-7	7.8	26
88	Cultivation and recovery of vascular endothelial cells in microchannels of a separable micro-chemical chip. *Biomaterials*, **2011**, 32, 2459-65	15.6	26
87	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	7.2	24
86	Sheathless Inertial Focusing Chip Combining a Spiral Channel with Periodic Expansion Structures for Efficient and Stable Particle Sorting. *Analytical Chemistry*, **2020**, 92, 1833-1841	7.8	24
85	An active valve incorporated into a microchip using a high strain electroactive polymer. *Sensors and Actuators B: Chemical*, **2013**, 184, 163-169	8.5	23

84	Demonstration of a bio-microactuator powered by vascular smooth muscle cells coupled to polymer micropillars. *Lab on A Chip*, **2008**, 8, 58-61	7.2	22
83	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	8.5	16
82	Isolating Single Cells by Glass Microfluidics for Raman Analysis of Paramylon Biogenesis. *Analytical Chemistry*, **2019**, 91, 9631-9639	7.8	15
81	Micro-patterned agarose gel devices for single-cell high-throughput microscopy of E. coli cells. *Scientific Reports*, **2017**, 7, 17750	4.9	15
80	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	8.5	15
79	Basic structure and cell culture condition of a bioartificial renal tubule on chip towards a cell-based separation microdevice. *Analytical Sciences*, **2011**, 27, 907-12	1.7	14
78	Mechanical properties of single cells: Measurement methods and applications. *Biotechnology Advances*, **2020**, 45, 107648	17.8	14
77	Ultra-thin glass sheet integrated transparent diaphragm pressure transducer. *Sensors and Actuators A: Physical*, **2017**, 263, 102-112	3.9	13
76	Rapid screening swine foot-and-mouth disease virus using micro-ELISA system. *Lab on A Chip*, **2011**, 11, 2153-5	7.2	13
75	Simple agarose micro-confinement array and machine-learning-based classification for analyzing the patterned differentiation of mesenchymal stem cells. *PLoS ONE*, **2017**, 12, e0173647	3.7	12
74	Time Sequential Single-Cell Patterning with High Efficiency and High Density. *Sensors*, **2018**, 18,	3.8	12
73	Glass based micro total analysis systems: Materials, fabrication methods, and applications. *Sensors and Actuators B: Chemical*, **2021**, 339, 129859	8.5	12
72	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	5.8	11
71	Ultrasensitive detection of nucleic acids based on dually enhanced fluorescence polarization. *Analyst, The*, **2018**, 143, 3560-3569	5	11
70	Combining microchip and cell technology for creation of novel biodevices. *Analytical and Bioanalytical Chemistry*, **2009**, 393, 23-9	4.4	11
69	Microchip-based plasma separation from whole blood via axial migration of blood cells. *Analytical Sciences*, **2011**, 27, 1173-8	1.7	10
68	Effects of Flow-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	4.6	10
67	In-situ detection based on the biofilm hydrophilicity for environmental biofilm formation. *Scientific Reports*, **2019**, 9, 8070	4.9	9

66	Analysis of Long-term Morphological Changes of Micro-patterned Molecules and Cells on PDMS and Glass Surfaces. *Analytical Sciences*, **2017**, 33, 723-725	1.7	9
65	Micropatterning of biomolecules on a glass substrate in fused silica microchannels by using photolabile linker-based surface activation. *Mikrochimica Acta*, **2012**, 179, 49-55	5.8	9
64	Development of a microfluidic platform for single-cell secretion analysis using a direct photoactive cell-attaching method. *Analytical Sciences*, **2011**, 27, 973-8	1.7	9
63	Property Investigation of Replaceable PDMS Membrane as an Actuator in Microfluidic Device. *Actuators*, **2018**, 7, 68	2.4	9
62	Enhancement in acoustic focusing of micro and nanoparticles by thinning a microfluidic device. *Royal Society Open Science*, **2019**, 6, 181776	3.3	8
61	An electric generator using living Torpedo electric organs controlled by fluid pressure-based alternative nervous systems. *Scientific Reports*, **2016**, 6, 25899	4.9	8
60	Ultrathin glass filter fabricated by femtosecond laser processing for high-throughput microparticle filtering. *Applied Physics Express*, **2016**, 9, 066702	2.4	8
59	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	8.5	7
58	Simple bilayer on-chip valves using reversible sealability of PDMS. *RSC Advances*, **2015**, 5, 5237-5243	3.7	7
57	High-speed micro-particle manipulation in a microfluidic chip by directional femtosecond laser impulse. *Sensors and Actuators A: Physical*, **2019**, 297, 111566	3.9	7
56	Assembly and simple demonstration of a micropump installing PDMS-based thin membranes as flexible micro check valves. *Journal of Biomedical Nanotechnology*, **2009**, 5, 516-20	4	7
55	Selective cell capture and analysis using shallow antibody-coated microchannels. *Biomicrofluidics*, **2012**, 6, 44117	3.2	7
54	Simple Isolation of Single Cell: Thin Glass Microfluidic Device for Observation of Isolated Single Euglena gracilis Cells. *Analytical Sciences*, **2019**, 35, 577-583	1.7	6
53	Insect Muscular Tissue-Powered Swimming Robot. *Actuators*, **2019**, 8, 30	2.4	6
52	Embryonic body culturing in an all-glass microfluidic device with laser-processed 40 μm thick ultra-thin glass sheet filter. *Biomedical Microdevices*, **2017**, 19, 85	3.7	6
51	Extended-Nanofluidic Systems for Chemistry and Biotechnology **2012**,		6
50	User-friendly cell patterning methods using a polydimethylsiloxane mold with microchannels. *Development Growth and Differentiation*, **2020**, 62, 167-176	3	6
49	Area cooling enables thermal positioning and manipulation of single cells. *Lab on A Chip*, **2020**, 20, 3733-3743	7.2	6

48	Fabrication of ultra-thin glass sheet by weight-controlled load-assisted precise thermal stretching. *Sensors and Actuators A: Physical*, **2021**, 321, 112604	3.9	6
47	A chemical micropump actuated by self-oscillating polymer gel. *Sensors and Actuators B: Chemical*, **2021**, 337, 129769	8.5	6
46	Vapor-based micro/nano-partitioning of fluoro-functional group immobilization for long-term stable cell patterning. *RSC Advances*, **2016**, 6, 96306-96313	3.7	6
45	Nanofluidic Devices and Applications for Biological Analyses. *Analytical Chemistry*, **2021**, 93, 332-349	7.8	6
44	A simple and reversible glass-glass bonding method to construct a microfluidic device and its application for cell recovery. *Lab on A Chip*, **2021**, 21, 2244-2254	7.2	6
43	A valve powered by earthworm muscle with both electrical and 100% chemical control. *Scientific Reports*, **2019**, 9, 8042	4.9	5
42	Integration of a reconstituted cell-free protein-synthesis system on a glass microchip. *Analytical Sciences*, **2015**, 31, 67-71	1.7	5
41	Anisotropies in microstructures and critical current densities in superconducting V3Ga tapes. *Journal of the Less Common Metals*, **1974**, 37, 177-180		5
40	Thin glass micro-dome structure based microlens fabricated by accurate thermal expansion of microcavities. *Applied Physics Letters*, **2019**, 115, 263501	3.4	5
39	Easy and efficient production of completely embryonic-stem-cell-derived mice using a micro-aggregation device. *PLoS ONE*, **2018**, 13, e0203056	3.7	5
38	Microscopic impedance cytometry for quantifying single cell shape. *Biosensors and Bioelectronics*, **2021**, 193, 113521	11.8	5
37	Rotation of Biological Cells: Fundamentals and Applications. *Engineering*, **2021**,	9.7	5
36	Accurate rotation of ultra-thin glass chamber for single-cell multidirectional observation. *Applied Physics Express*, **2020**, 13, 026502	2.4	4
35	A Microfluidic Platform Based on Robust Gas and Liquid Exchange for Long-term Culturing of Explanted Tissues. *Analytical Sciences*, **2019**, 35, 1141-1147	1.7	4
34	Micro/nanoparticle separation via curved nano-gap device with enhanced size resolution. *Journal of Chromatography A*, **2016**, 1455, 172-177	4.5	4
33	Characterization of the Hydration Process of Phospholipid-Mimetic Polymers Using Air-Injection-Mediated Liquid Exclusion Methods. *Langmuir*, **2020**, 36, 5626-5632	4	3
32	Flow analysis on microcasting with degassed polydimethylsiloxane micro-channels for cell patterning with cross-linked albumin. *PLoS ONE*, **2020**, 15, e0232518	3.7	3
31	Contamination-free non-contact wettability assessment system. *ROBOMECH Journal*, **2017**, 4,	2.1	3

30	Oocyte all-surfaces imaging method using micro-scale rotational flow. *Micro and Nano Letters*, **2018**, 13, 306-311	0.9	2
29	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	4.9	2
28	Dual-frequency impedance assays for intracellular components in microalgal cells.. *Lab on A Chip*, **2022**,	7.2	2
27	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	1.3	2
26	The cascade CLOS broadcast switching network - a new atm switching network which is multiconnection non-blocking		2
25	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	3.4	2
24	FPGA-Assisted Nonparallel Impedance Cytometry as Location Sensor of Single Particle **2021**,		2
23	Hydrodynamic particle focusing enhanced by femtosecond laser deep grooving at low Reynolds numbers. *Scientific Reports*, **2021**, 11, 1652	4.9	2
22	High-throughput label-free screening of euglena gracilis with optofluidic time-stretch quantitative phase microscopy **2017**,		1
21	Horizontal connection method for glass microfluidic devices. *Micro and Nano Letters*, **2020**, 15, 333-338	0.9	1
20	Establishment of a confluent cardiomyocyte culture in a cylindrical microchannel. *Analytical Sciences*, **2011**, 27, 957-60	1.7	1
19	Continuous 3D particles manipulation based on cooling thermal convection. *Sensors and Actuators B: Chemical*, **2022**, 358, 131511	8.5	1
18	Pneumatically Actuated Thin Glass Microlens for On-Chip Multi-Magnification Observations. *Actuators*, **2020**, 9, 73	2.4	1
17	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	7.7	1
16	Development of Microdevices Combining Machine and Life Systems. *Journal of Robotics and Mechatronics*, **2022**, 34, 288-290	0.7	1
15	Impedance-based tracking of the loss of intracellular components in microalgae cells. *Sensors and Actuators B: Chemical*, **2022**, 358, 131514	8.5	0
14	Vacuum microcasting of 2-methacryloyloxyethyl phosphorylcholine polymer for stable cell patterning. *BioTechniques*, **2020**, 69, 171-177	2.5	0
13	Movement tracing and analysis of benthic sting ray (Dasyatis akajei) and electric ray (Narke japonica) toward seabed exploration. *SN Applied Sciences*, **2020**, 2, 1	1.8	

12	Control and design of biosystems. *Development Growth and Differentiation*, **2020**, 62, 149	3
11	Development of Integrated Microfluidic Devices for Next-generation Bioanalysis. *Bunseki Kagaku*, **2017**, 66, 487-494	0.2
10	Development of a micro-potentiometric sensor for the microchip analysis of alkali ions. *Analytical Sciences*, **2009**, 25, 1397-401	1.7
9	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	1.3
8	Microactuators Driven by Smooth Muscle Cells. *Journal of the Institute of Electrical Engineers of Japan*, **2020**, 140, 591-594	0
7	Single-Cell Cultivation Utilizing Microfluidic Systems **2022**, 287-310	
6	Single-Cell Cultivation Utilizing Microfluidic Systems **2020**, 1-24	
5	Rapid and easy-to-use ES cell manipulation device with a small groove near culturing wells. *BMC Research Notes*, **2020**, 13, 453	2.3
4	Flow analysis on microcasting with degassed polydimethylsiloxane micro-channels for cell patterning with cross-linked albumin **2020**, 15, e0232518	
3	Flow analysis on microcasting with degassed polydimethylsiloxane micro-channels for cell patterning with cross-linked albumin **2020**, 15, e0232518	
2	Flow analysis on microcasting with degassed polydimethylsiloxane micro-channels for cell patterning with cross-linked albumin **2020**, 15, e0232518	
1	Flow analysis on microcasting with degassed polydimethylsiloxane micro-channels for cell patterning with cross-linked albumin **2020**, 15, e0232518	