

# Kazuhito V Tabata

## List of Publications by Year in descending order

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Version: 2024-02-01

58  
papers

2,307  
citations

304743

22  
h-index

254184

43  
g-index

62  
all docs

62  
docs citations

62  
times ranked

2704  
citing authors

#	ARTICLE	IF	CITATIONS
1	Microfabricated arrays of femtoliter chambers allow single molecule enzymology. <i>Nature Biotechnology</i> , 2005, 23, 361-365.	17.5	332
2	Diversity in ATP concentrations in a single bacterial cell population revealed by quantitative single-cell imaging. <i>Scientific Reports</i> , 2014, 4, 6522.	3.3	293
3	Photo Gel-Sol/Sol-Gel Transition and Its Patterning of a Supramolecular Hydrogel as Stimuli-Responsive Biomaterials. <i>Chemistry - A European Journal</i> , 2008, 14, 3977-3986.	3.3	208
4	Simple Dark-Field Microscopy with Nanometer Spatial Precision and Microsecond Temporal Resolution. <i>Biophysical Journal</i> , 2010, 98, 2014-2023.	0.5	150
5	Lipid Bilayer Microarray for Parallel Recording of Transmembrane Ion Currents. <i>Analytical Chemistry</i> , 2008, 80, 328-332.	6.5	101
6	Arrayed lipid bilayer chambers allow single-molecule analysis of membrane transporter activity. <i>Nature Communications</i> , 2014, 5, 4519.	12.8	101
7	Highly Reproducible Method of Planar Lipid Bilayer Reconstitution in Polymethyl Methacrylate Microfluidic Chip. <i>Langmuir</i> , 2006, 22, 1937-1942.	3.5	94
8	Planar lipid bilayer reconstitution with a micro-fluidic system. <i>Lab on A Chip</i> , 2004, 4, 502.	6.0	85
9	Ultrafast water permeation through nanochannels with a densely fluorinated interior surface. <i>Science</i> , 2022, 376, 738-743.	12.6	82
10	Visualization of cargo concentration by COPII minimal machinery in a planar lipid membrane. <i>EMBO Journal</i> , 2009, 28, 3279-3289.	7.8	80
11	Mechanism of Inhibition by C-terminal $\alpha$ -Helices of the $\mu$ Subunit of Escherichia coli FoF1-ATP Synthase. <i>Journal of Biological Chemistry</i> , 2009, 284, 17457-17464.	3.4	77
12	Reversible Ion Transportation Switch by a Ligand-Gated Synthetic Supramolecular Ion Channel. <i>Journal of the American Chemical Society</i> , 2014, 136, 15584-15595.	13.7	65
13	Mechano-Sensitive Synthetic Ion Channels. <i>Journal of the American Chemical Society</i> , 2017, 139, 18016-18023.	13.7	65
14	Electrophysiological recordings of single ion channels in planar lipid bilayers using a polymethyl methacrylate microfluidic chip. <i>Biosensors and Bioelectronics</i> , 2007, 22, 1111-1115.	10.1	60
15	Ion Permeation by a Folded Multiblock Amphiphilic Oligomer Achieved by Hierarchical Construction of Self-Assembled Nanopores. <i>Journal of the American Chemical Society</i> , 2012, 134, 19788-19794.	13.7	54
16	Accurate high-throughput screening based on digital protein synthesis in a massively parallel femtoliter droplet array. <i>Science Advances</i> , 2019, 5, eaav8185.	10.3	48
17	Role of the DELSEED Loop in Torque Transmission of F1-ATPase. <i>Biophysical Journal</i> , 2012, 103, 970-978.	0.5	47
18	Biased Brownian stepping rotation of FoF1-ATP synthase driven by proton motive force. <i>Nature Communications</i> , 2013, 4, 1631.	12.8	41

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19	A synthetic ion channel with anisotropic ligand response. <i>Nature Communications</i> , 2020, 11, 2924.	12.8	36
20	Mobile imaging platform for digital influenza virus counting. <i>Lab on A Chip</i> , 2019, 19, 2678-2687.	6.0	34
21	Thermally Responsive Supramolecular Nanomeshes for On/Off Switching of the Rotary Motion of F <sub>1</sub> -ATPase at the Single-Molecule Level. <i>Chemistry - A European Journal</i> , 2008, 14, 1891-1896.	3.3	30
22	Acceleration of the ATP-binding rate of F <sub>1</sub> -ATPase by forcible forward rotation. <i>FEBS Letters</i> , 2009, 583, 3187-3191.	2.8	25
23	Revealing the Metabolic Activity of Persisters in Mycobacteria by Single-Cell D <sub>2</sub> O Raman Imaging Spectroscopy. <i>Analytical Chemistry</i> , 2019, 91, 15171-15178.	6.5	23
24	Synthetic Ion Channel Formed by Multiblock Amphiphile with Anisotropic Dual-Stimuli-Responsiveness. <i>Journal of the American Chemical Society</i> , 2021, 143, 1348-1355.	13.7	23
25	Antibody-free digital influenza virus counting based on neuraminidase activity. <i>Scientific Reports</i> , 2019, 9, 1067.	3.3	19
26	Supramolecular Mechanosensitive Potassium Channel Formed by Fluorinated Amphiphilic Cyclophane. <i>Journal of the American Chemical Society</i> , 2022, 144, 11802-11809.	13.7	17
27	Multidimensional Digital Bioassay Platform Based on an Air-Sealed Femtoliter Reactor Array Device. <i>Analytical Chemistry</i> , 2021, 93, 5494-5502.	6.5	16
28	Highly sensitive restriction enzyme assay and analysis: a review. <i>Analytical and Bioanalytical Chemistry</i> , 2008, 391, 2423-2432.	3.7	15
29	Sequential processing from cell lysis to protein assay on a chip enabling the optimization of an F <sub>1</sub> -ATPase single molecule assay condition. <i>Lab on A Chip</i> , 2009, 9, 3567.	6.0	15
30	Robustness of the Rotary Catalysis Mechanism of F <sub>1</sub> -ATPase. <i>Journal of Biological Chemistry</i> , 2014, 289, 19331-19340.	3.4	10
31	Imidazolium-based Multiblock Amphiphile as Transmembrane Anion Transporter. <i>Chemistry - an Asian Journal</i> , 2021, 16, 147-157.	3.3	9
32	Osmolyte-Enhanced Protein Synthesis Activity of a Reconstituted Translation System. <i>ACS Synthetic Biology</i> , 2019, 8, 557-567.	3.8	8
33	Single Cell Array Enclosed with a Photodegradable Hydrogel in Microwells for Image-Based Cell Classification and Selective Photorelease of Cells. <i>ACS Applied Bio Materials</i> , 2020, 3, 5887-5895.	4.6	8
34	Amplification of over 100 kbp DNA from Single Template Molecules in Femtoliter Droplets. <i>ACS Synthetic Biology</i> , 2021, 10, 2179-2186.	3.8	8
35	Hybrid cell reactor system from Escherichia coli protoplast cells and arrayed lipid bilayer chamber device. <i>Scientific Reports</i> , 2018, 8, 11757.	3.3	7
36	Simultaneous Optical and Electrical Single Channel Recordings on a PEG Glass. <i>Langmuir</i> , 2010, 26, 8540-8543.	3.5	5

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37	Light-triggered vesicle formation: important factors for generation of vesicles and possible applications. Pure and Applied Chemistry, 2014, 86, 1259-1267.	1.9	5
38	Single-Molecule Assay of Biological Reaction in Femtoliter Chamber Array. Japanese Journal of Applied Physics, 2009, 48, 08JA04.	1.5	4
39	Myb-binding site regulates the expression of glucosamine-6-phosphate isomerase in Dictyostelium discoideum. Development Growth and Differentiation, 2001, 43, 583-589.	1.5	2
40	Regeneration of Escherichia coli Giant Protoplasts to Their Original Form. Life, 2019, 9, 24.	2.4	2
41	Gold Functionalized Nano-Needles for Angular Protein Movement Visualization. Nanobiotechnology, 2005, 1, 227-236.	1.2	1
42	An artificial lipid bilayer formed on a PEG-coated glass for simultaneous electrical and optical measurement of single ion-channels. E-Journal of Surface Science and Nanotechnology, 2005, 3, 70-73.	0.4	1
43	Grafting synthetic transmembrane units to the engineered low-toxicity $\hat{I}\pm$ -hemolysin to restore its hemolytic activity. Molecular BioSystems, 2014, 10, 3199-3206.	2.9	1
44	Formation process of planar lipid bilayer observed by confocal microscopy. , 0, , .		0
45	Silicon nanoafedles with specific attachment point for visualization of protein movement. , 0, , .		0
46	Characterization of the Membrane Transport Assay System Using Microchamber Array. , 2006, , .		0
47	A cell lysis and protein purification“single molecule assay devices for evaluation of genetically engineered proteins. Electronics and Communications in Japan, 2009, 92, 20-30.	0.5	0
48	Visualization of cargo dynamics in COPII vesicle formation on artificial planar lipid membrane. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 45-46.	1.0	0
49	2N1412 Real-time observation of the ATP concentration inside E. coli cells using ATP biosensor "ATeam"(Bioimaging 2,The 48th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2011, 51, S99.	0.1	0
50	1PS033 Direct observation of H <sup>+</sup> -driven rotation of F <sub>OF</sub> -1-ATP synthase(The 50th Annual Meeting of) Tj ETQq0 0.0 rgBT /Overlock 10	0.1	0
51	Attoliter order droplet formation using nanochannels and enzyme reaction inside a droplet. , 2013, , .		0
52	3P265 Toward reproduction of a bacterium from hybrid chamber cells(20. Origin of life & Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 14) Butsuri, 2014, 54, S293.	0.1	0
53	3P321 Development of enzyme screening system for directed evolution based on enzymic activity(28.) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 14) Butsuri, 2014, 54, S302.	0.1	0
54	Development of Enzyme Digital Assays Derived from Single Molecule Detection. Seibutsu Butsuri, 2021, 61, 095-101.	0.1	0

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55	Ultra-small chamber for single-molecule detection of biological reaction. E-Journal of Surface Science and Nanotechnology, 2005, 3, 79-81.	0.4	0
56	ATP Synthesis by Single FoF1 Molecules Encapsulated in a Femto-litter Chamber. Hyomen Kagaku, 2006, 27, 420-425.	0.0	0
57	A Cell Lysis and Protein Purification - Single Molecule Assay Devices for Evaluation of Genetically Engineered Proteins. IEEJ Transactions on Sensors and Micromachines, 2008, 128, 167-175.	0.1	0
58	A microreactor sealing method using adhesive tape for digital bioassays. Lab on A Chip, 2022, , .	6.0	0