Ryota Iino

List of Publications by Year in descending order

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Version: 2024-02-01

111 papers	6,668 citations	87888 38 h-index	64796 79 g-index
117 all docs	117 docs citations	117 times ranked	7510 citing authors

#	Article	IF	Citations
1	Linear-Zero Mode Waveguides for Single-Molecule Fluorescence Observation of Nucleotides in Kinesin-Microtubule Motility Assay. Methods in Molecular Biology, 2022, 2430, 121-131.	0.9	0
2	Label-free monitoring of crystalline chitin hydrolysis by chitinase based on Raman spectroscopy. Analyst, The, 2021, 146, 4087-4094.	3.5	4
3	Positive Charge Introduction on the Surface of Thermostabilized PET Hydrolase Facilitates PET Binding and Degradation. ACS Catalysis, 2021, 11, 8550-8564.	11.2	39
4	High-speed near-field fluorescence microscopy combined with high-speed atomic force microscopy for biological studies. Biochimica Et Biophysica Acta - General Subjects, 2020, 1864, 129325.	2.4	25
5	Introduction: Molecular Motors. Chemical Reviews, 2020, 120, 1-4.	47.7	53
6	Single Cell Array Enclosed with a Photodegradable Hydrogel in Microwells for Image-Based Cell Classification and Selective Photorelease of Cells. ACS Applied Bio Materials, 2020, 3, 5887-5895.	4.6	8
7	Combined Approach to Engineer a Highly Active Mutant of Processive Chitinase Hydrolyzing Crystalline Chitin. ACS Omega, 2020, 5, 26807-26816.	3.5	3
8	Domain architecture divergence leads to functional divergence in binding and catalytic domains of bacterial and fungal cellobiohydrolases. Journal of Biological Chemistry, 2020, 295, 14606-14617.	3.4	11
9	Chemical-State-Dependent Free Energy Profile from Single-Molecule Trajectories of Biomolecular Motors: Application to Processive Chitinase. Journal of Physical Chemistry B, 2020, 124, 6475-6487.	2.6	3
10	Single-molecule imaging analysis reveals the mechanism of a high-catalytic-activity mutant of chitinase A from Serratia marcescens. Journal of Biological Chemistry, 2020, 295, 1915-1925.	3.4	12
11	Small stepping motion of processive dynein revealed by load-free high-speed single-particle tracking. Scientific Reports, 2020, 10, 1080.	3.3	10
12	Crystalline chitin hydrolase is a burnt-bridge Brownian motor. Biophysics and Physicobiology, 2020, 17, 51-58.	1.0	5
13	[Review] Moving Mechanism of Chitinase A from <i>Serratia marcescens</i>. Bulletin of Applied Glycoscience, 2020, 10, 89-95.	0.0	0
14	Multicolor High-Speed Tracking of Single Biomolecules with Silver, Gold, and Silverâ€“Gold Alloy Nanoparticles. ACS Photonics, 2019, 6, 2870-2883.	6.6	17
15	Accurate high-throughput screening based on digital protein synthesis in a massively parallel femtoliter droplet array. Science Advances, 2019, 5, eaav8185.	10.3	48
16	Single-molecule analysis reveals rotational substeps and chemo-mechanical coupling scheme of Enterococcus hirae V1-ATPase. Journal of Biological Chemistry, 2019, 294, 17017-17030.	3.4	29
17	Chitinase Moves on and Degradates Crystalline Chitin with Brownian Motion. Seibutsu Butsuri, 2019, 59, 330-333.	0.1	0
18	Rate constants, processivity, and productive binding ratio of chitinase A revealed by single-molecule analysis. Physical Chemistry Chemical Physics, 2018, 20, 3010-3018.	2.8	24

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19	Large-Scale Femtoliter Droplet Array for Single Cell Efflux Assay of Bacteria. Methods in Molecular Biology, 2018, 1700, 331-341.	0.9	4
20	Single-molecule imaging and manipulation of biomolecular machines and systems. Biochimica Et Biophysica Acta - General Subjects, 2018, 1862, 241-252.	2.4	12
21	Simultaneous Observation of Kinesin-Driven Microtubule Motility and Binding of Adenosine Triphosphate Using Linear Zero-Mode Waveguides. ACS Nano, 2018, 12, 11975-11985.	14.6	14
22	Single-Nanoparticle Tracking with Angstrom Localization Precision and Microsecond Time Resolution. Biophysical Journal, 2018, 115, 2413-2427.	0.5	28
23	Off-axis rotor in Enterococcus hirae V-ATPase visualized by Zernike phase plate single-particle cryo-electron microscopy. Scientific Reports, 2018, 8, 15632.	3.3	9
24	Visualization of Functional Structure and Kinetic Dynamics of Cellulases. Advances in Experimental Medicine and Biology, 2018, 1104, 201-217.	1.6	2
25	Processive chitinase is Brownian monorail operated by fast catalysis after peeling rail from crystalline chitin. Nature Communications, 2018, 9, 3814.	12.8	50
26	Plasmid-Based One-Pot Saturation Mutagenesis and Robot-Based Automated Screening for Protein Engineering. ACS Omega, 2018, 3, 7715-7726.	3.5	7
27	Dynamic structural states of ClpB involved in its disaggregation function. Nature Communications, 2018, 9, 2147.	12.8	55
28	Linear zero mode waveguides for the study of chemo-mechanical coupling mechanism of kinesin. , 2017, , .		1
29	Design and Fabrication of Linear-shaped Zero Mode Waveguides for Single Molecule Observation of Kinesin and Fluorescent ATP. IEEJ Transactions on Sensors and Micromachines, 2017, 137, 159-164.	0.1	0
30	A Microfluidic Channel Method for Rapid Drug-Susceptibility Testing of Pseudomonas aeruginosa. PLoS ONE, 2016, 11, e0148797.	2.5	54
31	Single-molecule fluorescence imaging of kinesin using linear zero-mode waveguides. , 2016, , .		2
32	Direct observation of intermediate states during the stepping motion of kinesin-1. Nature Chemical Biology, 2016, 12, 290-297.	8.0	119
33	Rotation of artificial rotor axles in rotary molecular motors. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11214-11219.	7.1	13
34	Single-molecule Imaging Analysis of Binding, Processive Movement, and Dissociation of Cellobiohydrolase Trichoderma reesei Cel6A and Its Domains on Crystalline Cellulose. Journal of Biological Chemistry, 2016, 291, 22404-22413.	3.4	45
35	Single-Cell Detection and Collection of Persister Bacteria in a Directly Accessible Femtoliter Droplet Array. Methods in Molecular Biology, 2016, 1333, 101-109.	0.9	2
36	C3-O-03Single particle 3D reconstruction ofEhV-ATPase by Zernike phase contrast cryo-electron microscopy equipped with a direct detector. Microscopy (Oxford, England), 2015, 64, i68.1-i68.	1.5	0

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37	High-Speed Angle-Resolved Imaging of a Single Gold Nanorod with Microsecond Temporal Resolution and One-Degree Angle Precision. Analytical Chemistry, 2015, 87, 2079-2086.	6.5	29
38	Key Chemical Factors of Arginine Finger Catalysis of F₁-ATPase Clarified by an Unnatural Amino Acid Mutation. Biochemistry, 2015, 54, 472-480.	2.5	14
39	A single-molecule digital enzyme assay using alkaline phosphatase with a cumarin-based fluorogenic substrate. Analyst, The, 2015, 140, 5065-5073.	3.5	45
40	Rotational mechanism of Enterococcus hirae V1-ATPase by crystal-structure and single-molecule analyses. Current Opinion in Structural Biology, 2015, 31, 49-56.	5.7	16
41	A CMOS image sensor with stacked photodiodes for lensless observation system of digital enzyme-linked immunosorbent assay. Japanese Journal of Applied Physics, 2014, 53, 04EL02.	1.5	18
42	Motion Capture and Manipulation of a Single Synthetic Molecular Rotor by Optical Microscopy. Angewandte Chemie, 2014, 126, 10246-10249.	2.0	6
43	Motion Capture and Manipulation of a Single Synthetic Molecular Rotor by Optical Microscopy. Angewandte Chemie - International Edition, 2014, 53, 10082-10085.	13.8	14
44	Torque Generation of Enterococcus hirae V-ATPase. Journal of Biological Chemistry, 2014, 289, 31212-31223.	3.4	27
45	Molecular structure and rotary dynamics of <scp>E</scp>nterococcus hirae<scp>V</scp>₁â€<scp>ATP</scp>ase. IUBMB Life, 2014, 66, 624-630.	3.4	6
46	Single-molecule Imaging Analysis of Elementary Reaction Steps of Trichoderma reesei Cellobiohydrolase I (Cel7A) Hydrolyzing Crystalline Cellulose Iα and Iβ. Journal of Biological Chemistry, 2014, 289, 14056-14065.	3.4	50
47	Real-time fluorescence visualization of slow tautomerization of single free-base phthalocyanines under ambient conditions. Chemical Communications, 2014, 50, 9443.	4.1	7
48	3P321 Development of enzyme screening system for directed evolution based on enzymic activity(28.) Tj ETQq0 0 0 rgBT /Overlock 10 T Butsuri, 2014, 54, S302.	0.1	0
49	Dual-mode lensless imaging device for digital enzyme linked immunosorbent assay. , 2014, , .		8
50	High-speed atomic force microscope combined with single-molecule fluorescence microscope. Review of Scientific Instruments, 2013, 84, 073706.	1.3	65
51	Operation mechanism of F_oF₁â€adenosine triphosphate synthase revealed by its structure and dynamics. IUBMB Life, 2013, 65, 238-246.	3.4	25
52	Lensless imaging device for digital counting of fluorescent micro-droplet chambers. , 2013, , .		1
53	A CMOS image sensor with low fixed pattern noise suitable for lensless observation system of digital enzyme-linked immunosorbent assay (ELISA). , 2013, , .		1
54	Intersubunit coordination and cooperativity in ring-shaped NTPases. Current Opinion in Structural Biology, 2013, 23, 229-234.	5.7	15

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55	Biased Brownian stepping rotation of FoF1-ATP synthase driven by proton motive force. Nature Communications, 2013, 4, 1631.	12.8	41
56	Design of a large-scale femtoliter droplet array for single-cell analysis of drug-tolerant and drug-resistant bacteria. Frontiers in Microbiology, 2013, 4, 300.	3.5	38
57	Basic Properties of Rotary Dynamics of the Molecular Motor Enterococcus hirae V1-ATPase. Journal of Biological Chemistry, 2013, 288, 32700-32707.	3.4	51
58	2P160 Single-Molecular Measurement of a Synthetic Molecular Bearing(11. Molecular motor,Poster). Seibutsu Butsuri, 2013, 53, S185.	0.1	0
59	Winding DNA on Molecular Reel Made of F₁-ATPase. Seibutsu Butsuri, 2013, 53, 160-161.	0.1	0
60	Winding single-molecule double-stranded DNA on a nanometer-sized reel. Nucleic Acids Research, 2012, 40, e151-e151.	14.5	12
61	Complementary Metalâ€“Oxideâ€“Semiconductor Image Sensor with Microchamber Array for Fluorescent Bead Counting. Japanese Journal of Applied Physics, 2012, 51, 02BL01.	1.5	12
62	Principal Role of the Arginine Finger in Rotary Catalysis of F1-ATPase. Journal of Biological Chemistry, 2012, 287, 15134-15142.	3.4	37
63	3PT103 Bending stiffness of double-stranded DNA measured by winding single-molecule on a nanometer-sized reel(The 50th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2012, 52, S157-S158.	0.1	0
64	1PS033 Direct observation of H^+-driven rotation of F_0F_1-ATP synthase(The 50th Annual Meeting of) Tj ETQq0 0 0 rgBT /Overlock 10	0.1	0
65	Rotary catalysis of the stator ring of F1-ATPase. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 1732-1739.	1.0	14
66	A single-cell drug efflux assay in bacteria by using a directly accessible femtoliter droplet array. Lab on A Chip, 2012, 12, 3923.	6.0	48
67	Large-scale femtoliter droplet array for digital counting of single biomolecules. Lab on A Chip, 2012, 12, 4986.	6.0	185
68	Label-Free Single-Particle Imaging of the Influenza Virus by Objective-Type Total Internal Reflection Dark-Field Microscopy. PLoS ONE, 2012, 7, e49208.	2.5	38
69	A Microfluidic Device for Simple and Rapid Evaluation of Multidrug Efflux Pump Inhibitors. Frontiers in Microbiology, 2012, 3, 40.	3.5	21
70	Molecular Mechanism of ATP Hydrolysis in F₁-ATPase Revealed by Molecular Simulations and Single-Molecule Observations. Journal of the American Chemical Society, 2012, 134, 8447-8454.	13.7	95
71	Mechanical modulation of catalytic power on F1-ATPase. Nature Chemical Biology, 2012, 8, 86-92.	8.0	94
72	Complementary Metalâ€“Oxideâ€“Semiconductor Image Sensor with Microchamber Array for Fluorescent Bead Counting. Japanese Journal of Applied Physics, 2012, 51, 02BL01.	1.5	12

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73	1SM-03 Real-Time Single-Molecular Measurement of Artificial Molecular Rotor(1SM Interdisciplinary) Tj ETQq1 1 0.784314 rgBT /Over	0.1	0
74	Evaluation of Multidrug Efflux Pump Inhibitors by a New Method Using Microfluidic Channels. PLoS ONE, 2011, 6, e18547.	2.5	95
75	1C1324 Flexural rigidity of dsDNA measured by winding single molecule on a nanometer size bearing(Nucleic acid,The 49th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2011, 51, S34.	0.1	0
76	1L1424 P10 1YE1115 Key mechanism for high efficiency and reversibility of chemomechanical coupling in F_1-ATPase revealed by single-molecule manipulation(Molecular motor 1,Early Research in Biophysics) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.1	0
77	1L1336 Detection of rotaton of F1-ATPase using high-speed orientational detection of gold nanorod(Molecular motor 1,The 49th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2011, 51, S60.	0.1	0
78	Subunit rotation in a single F o F 1 -ATP synthase in a living bacterium monitored by FRET. , 2011, , .		11
79	High-Speed Atomic Force Microscopy Reveals Rotary Catalysis of Rotorless F ₁ -ATPase. Science, 2011, 333, 755-758.	12.6	420
80	Rotation and structure of FoF1-ATP synthase. Journal of Biochemistry, 2011, 149, 655-664.	1.7	184
81	2SH-04 Single-molecule real-time imaging of ATP synthase in vitro and in living cells(2SH New) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.1	0
82	Stiffness of Î³ subunit of F1-ATPase. European Biophysics Journal, 2010, 39, 1589-1596.	2.2	38
83	Phosphate release in F1-ATPase catalytic cycle follows ADP release. Nature Chemical Biology, 2010, 6, 814-820.	8.0	146
84	Activation and Stiffness of the Inhibited States of F1-ATPase Probed by Single-molecule Manipulation. Journal of Biological Chemistry, 2010, 285, 11411-11417.	3.4	30
85	Fluctuation Theorem Applied to<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi mathvariant="bold">F</mml:mi><mml:mn>1</mml:mn></mml:msub></mml:math>-ATPase. Physical Review Letters, 2010, 104, 218103.	7.8	146
86	Simple Dark-Field Microscopy with Nanometer Spatial Precision and Microsecond Temporal Resolution. Biophysical Journal, 2010, 98, 2014-2023.	0.5	150
87	A single-molecule enzymatic assay in a directly accessible femtoliter droplet array. Lab on A Chip, 2010, 10, 3355.	6.0	186
88	Visualization of ATP levels inside single living cells with fluorescence resonance energy transfer-based genetically encoded indicators. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15651-15656.	7.1	884
89	Single-molecule Study on the Temperature-sensitive Reaction of F1-ATPase with a Hybrid F1 Carrying a Single Î²(E190D). Journal of Biological Chemistry, 2009, 284, 23169-23176.	3.4	23
90	Single-Molecule Assay of Biological Reaction in Femtoliter Chamber Array. Japanese Journal of Applied Physics, 2009, 48, 08JA04.	1.5	4

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91	Mechanism of Inhibition by C-terminal Î±-Helices of the Ïµ Subunit of Escherichia coli FoF1-ATP Synthase. Journal of Biological Chemistry, 2009, 284, 17457-17464.	3.4	77
92	Highly sensitive restriction enzyme assay and analysis: a review. Analytical and Bioanalytical Chemistry, 2008, 391, 2423-2432.	3.7	15
93	Temperatureâ€sensitive reaction intermediate of F₁â€ATPase. EMBO Reports, 2008, 9, 84-90.	4.5	46
94	Correlation between the conformational states of F ₁ -ATPase as determined from its crystal structure and single-molecule rotation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20722-20727.	7.1	71
95	GPI-anchored receptor clusters transiently recruit Lyn and GÎ± for temporary cluster immobilization and Lyn activation: single-molecule tracking study 1. Journal of Cell Biology, 2007, 177, 717-730.	5.2	292
96	GPI-anchored receptor clusters transiently recruit Lyn and GÎ± for temporary cluster immobilization and Lyn activation: single-molecule tracking study 1. Journal of Experimental Medicine, 2007, 204, i18-i18.	8.5	0
97	F1-ATPase: a highly coupled reversible rotary motor. Biochemical Society Transactions, 2006, 34, 993-996.	3.4	8
98	Structure of a central stalk subunit F of prokaryotic V-type ATPase/synthase from Thermus thermophilus. EMBO Journal, 2005, 24, 3974-3983.	7.8	53
99	Chemomechanical Coupling in Single-Molecule F-Type ATP Synthase. Journal of Bioenergetics and Biomembranes, 2005, 37, 451-454.	2.3	11
100	Real-time Monitoring of Conformational Dynamics of the Ïµ Subunit in F1-ATPase. Journal of Biological Chemistry, 2005, 280, 40130-40134.	3.4	64
101	Fluorescence Imaging for Monitoring the Colocalization of Two Single Molecules in Living Cells. Biophysical Journal, 2005, 88, 2126-2136.	0.5	154
102	Single-molecule imaging analysis of Ras activation in living cells. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 7317-7322.	7.1	359
103	Ultrafine Membrane Compartments for Molecular Diffusion as Revealed by Single Molecule Techniques. Biophysical Journal, 2004, 86, 4075-4093.	0.5	400
104	Mechanism of Lck Recruitment to the T-Cell Receptor Cluster as Studied by Single-Molecule-Fluorescence Video Imaging. ChemPhysChem, 2003, 4, 620-626.	2.1	63
105	Accumulation of anchored proteins forms membrane diffusion barriers during neuronal polarization. Nature Cell Biology, 2003, 5, 626-632.	10.3	324
106	The fence and picket structure of the plasma membrane of live cells as revealed by single molecule techniques (Review). Molecular Membrane Biology, 2003, 20, 13-18.	2.0	187
107	F0F1-ATPase/Synthase Is Geared to the Synthesis Mode by Conformational Rearrangement of Ïµ Subunit in Response to Proton Motive Force and ADP/ATP Balance. Journal of Biological Chemistry, 2003, 278, 46840-46846.	3.4	144
108	The fence and picket structure of the plasma membrane of live cells as revealed by single molecule techniques (Review). Molecular Membrane Biology, 2003, 20, 13-18.	2.0	2

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109	Single Molecule Imaging of Green Fluorescent Proteins in Living Cells: E-Cadherin Forms Oligomers on the Free Cell Surface. Biophysical Journal, 2001, 80, 2667-2677.	0.5	300
110	Single-Fluorophore Dynamic Imaging in Living Cells. Journal of Fluorescence, 2001, 11, 187-195.	2.5	23
111	Two Rotary Motors of ATP Synthase. , 0, , 237-255.		0