Hiromi Imamura

List of Publications by Year
in descending order

96 papers	6,170 citations	87888 38 h-index	74163 75 g-index
109 all docs	109 docs citations	109 times ranked	9379 citing authors

#	Article	IF	Citations
1	High and stable ATP levels prevent aberrant intracellular protein aggregation in yeast. ELife, 2022, 11, .	6.0	23
2	Dynamics of ATP Levels in Single Dying Apoptotic Cells. Seibutsu Butsuri, 2022, 62, 125-127.	0.1	0
3	Lactate is an energy substrate for rodent cortical neurons and enhances their firing activity. ELife, 2021, 10, .	6.0	42
4	Higd1a improves respiratory function in the models of mitochondrial disorder. FASEB Journal, 2020, 34, 1859-1871.	0.5	16
5	In vivo realâ€time ATP imaging in zebrafish hearts reveals G0s2 induces ischemic tolerance. FASEB Journal, 2020, 34, 2041-2054.	0.5	10
6	Measurement of ATP concentrations in mitochondria of living cells using luminescence and fluorescence approaches. Methods in Cell Biology, 2020, 155, 199-219.	1.1	13
7	Spatiotemporal ATP Dynamics during AKI Predict Renal Prognosis. Journal of the American Society of Nephrology: JASN, 2020, 31, 2855-2869.	6.1	29
8	Monitoring and mathematical modeling of mitochondrial ATP in myotubes at singleâ€cell level reveals two distinct population with different kinetics. Quantitative Biology, 2020, 8, 228-237.	0.5	4
9	Intracellular ATP levels in mouse cortical excitatory neurons varies with sleepâ€“wake states. Communications Biology, 2020, 3, 491.	4.4	24
10	Shear stress activates mitochondrial oxidative phosphorylation by reducing plasma membrane cholesterol in vascular endothelial cells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 33660-33667.	7.1	44
11	Single-cell dynamics of pannexin-1-facilitated programmed ATP loss during apoptosis. ELife, 2020, 9, .	6.0	34
12	NAD+ consumption by PARP1 in response to DNA damage triggers metabolic shift critical for damaged cell survival. Molecular Biology of the Cell, 2019, 30, 2584-2597.	2.1	91
13	A molecular triage process mediated by RING finger protein 126 and BCL2-associated athanogene 6 regulates degradation of G0/G1 switch gene 2. Journal of Biological Chemistry, 2019, 294, 14562-14573.	3.4	14
14	PPARÎ±-Mediated Positive-Feedback Loop Contributes to Cold Exposure Memory. Scientific Reports, 2019, 9, 4538.	3.3	5
15	Spindle pole body movement is affected by glucose and ammonium chloride in fission yeast. Biochemical and Biophysical Research Communications, 2019, 511, 820-825.	2.1	6
16	Reliable imaging of ATP in living budding and fission yeast. Journal of Cell Science, 2019, 132, .	2.0	30
17	OLIVe: A Genetically Encoded Fluorescent Biosensor for Quantitative Imaging of Branched-Chain Amino Acid Levels inside Single Living Cells. ACS Sensors, 2019, 4, 3333-3342.	7.8	21
18	Human AK2 links intracellular bioenergetic redistribution to the fate of hematopoietic progenitors. Biochemical and Biophysical Research Communications, 2018, 497, 719-725.	2.1	15

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19	Analysis of mitochondrial function in human induced pluripotent stem cells from patients with mitochondrial diabetes due to the A3243G mutation. Scientific Reports, 2018, 8, 949.	3.3	13
20	A Transient Rise in Free Mg2+ Ions Released from ATP-Mg Hydrolysis Contributes to Mitotic Chromosome Condensation. Current Biology, 2018, 28, 444-451.e6.	3.9	116
21	A Trace Amount of Galactose, a Major Component of Milk Sugar, Allows Maturation of Glycoproteins during Sugar Starvation. IScience, 2018, 10, 211-221.	4.1	10
22	Automatic Quantitative Segmentation of Myotubes Reveals Single-cell Dynamics of S6 Kinase Activation. Cell Structure and Function, 2018, 43, 153-169.	1.1	2
23	Shear stress augments mitochondrial ATP generation that triggers ATP release and Ca²⁺signaling in vascular endothelial cells. American Journal of Physiology - Heart and Circulatory Physiology, 2018, 315, H1477-H1485.	3.2	62
24	General anesthetics cause mitochondrial dysfunction and reduction of intracellular ATP levels. PLoS ONE, 2018, 13, e0190213.	2.5	37
25	Glycolysis, but not Mitochondria, responsible for intracellular ATP distribution in cortical area of podocytes. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2018, WCP2018, PO2-4-22.	0.0	0
26	Mitochondrial dysfunction induces dendritic loss via eIF2Î± phosphorylation. Journal of Cell Biology, 2017, 216, 815-834.	5.2	47
27	Distinct intracellular Ca2+ dynamics regulate apical constriction and differentially contribute to neural tube closure. Development (Cambridge), 2017, 144, 1307-1316.	2.5	42
28	Cell competition with normal epithelial cells promotes apical extrusion of transformed cells through metabolicÂchanges. Nature Cell Biology, 2017, 19, 530-541.	10.3	172
29	Application of FRET-Based Biosensor â€œATeamâ€•for Visualization of ATP Levels in the Mitochondrial Matrix of Living Mammalian Cells. Methods in Molecular Biology, 2017, 1567, 231-243.	0.9	30
30	Visualization of long-term Mg2+ dynamics in apoptotic cells using a novel targetable fluorescent probe. Chemical Science, 2017, 8, 8255-8264.	7.4	28
31	Fusion protein analysis reveals the precise regulation between Hsp70 and Hsp100 during protein disaggregation. Scientific Reports, 2017, 7, 8648.	3.3	13
32	RLR-mediated antiviral innate immunity requires oxidative phosphorylation activity. Scientific Reports, 2017, 7, 5379.	3.3	44
33	ATP Maintenance via Two Types of ATP Regulators Mitigates Pathological Phenotypes in Mouse Models of Parkinson's Disease. EBioMedicine, 2017, 22, 225-241.	6.1	54
34	Evaluation of Mitochondrial Respiratory Activity Using a FRET-based Indicator for Intracellular ATP. Seibutsu Butsuri, 2017, 57, 268-270.	0.1	0
35	Monitoring ATP dynamics in electrically active white matter tracts. ELife, 2017, 6, .	6.0	102
36	Glycolysis, but not Mitochondria, responsible for intracellular ATP distribution in cortical area of podocytes. Scientific Reports, 2016, 5, 18575.	3.3	53

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37	BTeam, a Novel BRET-based Biosensor for the Accurate Quantification of ATP Concentration within Living Cells. Scientific Reports, 2016, 6, 39618.	3.3	75
38	Visualization of NO3âˆ’/NO2âˆ’ Dynamics in Living Cells by Fluorescence Resonance Energy Transfer (FRET) Imaging Employing a Rhizobial Two-component Regulatory System. Journal of Biological Chemistry, 2016, 291, 2260-2269.	3.4	17
39	Macromolecular Crowding in the Cytosol: Underappreciated or Overestimated?. Biophysical Journal, 2015, 108, 114a.	0.5	0
40	Cardiac Energetics Re-evaluated by in Vivo Visualization of ATP Levels. Journal of Cardiac Failure, 2015, 21, S174.	1.7	0
41	The Plasma Membrane Calcium Pump in Pancreatic Cancer Cells Exhibiting the Warburg Effect Relies on Glycolytic ATP. Journal of Biological Chemistry, 2015, 290, 24760-24771.	3.4	35
42	Mitochondrial dysfunction in primary human fibroblasts triggers an adaptive cell survival program that requires AMPK-Î±. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2015, 1852, 529-540.	3.8	40
43	Mild Glucose Starvation Induces KDM2A-Mediated H3K36me2 Demethylation through AMPK To Reduce rRNA Transcription and Cell Proliferation. Molecular and Cellular Biology, 2015, 35, 4170-4184.	2.3	50
44	Associative Interactions in Crowded Solutions of Biopolymers Counteract Depletion Effects. Journal of the American Chemical Society, 2015, 137, 13041-13048.	13.7	55
45	Glucose-stimulated Single Pancreatic Islets Sustain Increased Cytosolic ATP Levels during Initial Ca2+ Influx and Subsequent Ca2+ Oscillations. Journal of Biological Chemistry, 2014, 289, 2205-2216.	3.4	43
46	Tollâ€like receptor 9 protects nonâ€immune cells from stress by modulating mitochondrial <scp>ATP</scp> synthesis through the inhibition of <scp>SERCA</scp> 2. EMBO Reports, 2014, 15, 438-445.	4.5	66
47	ATP increases within the lumen of the endoplasmic reticulum upon intracellular Ca²⁺release. Molecular Biology of the Cell, 2014, 25, 368-379.	2.1	65
48	Evaluation of intramitochondrial ATP levels identifies G0/G1 switch gene 2 as a positive regulator of oxidative phosphorylation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 273-278.	7.1	101
49	Diversity in ATP concentrations in a single bacterial cell population revealed by quantitative single-cell imaging. Scientific Reports, 2014, 4, 6522.	3.3	293
50	ATP Imaging in Xenopus laevis Oocytes. , 2014, , 181-186.		2
51	In Vivo Fluorescent Adenosine 5â€²-Triphosphate (ATP) Imaging of <i>Drosophila melanogaster</i> and <i>Caenorhabditis elegans</i> by Using a Genetically Encoded Fluorescent ATP Biosensor Optimized for Low Temperatures. Analytical Chemistry, 2013, 85, 7889-7896.	6.5	103
52	Role of PFKFB3-Driven Glycolysis in Vessel Sprouting. Cell, 2013, 154, 651-663.	28.9	1,117
53	Genetically encoded fluorescent thermosensors visualize subcellular thermoregulation in living cells. Nature Methods, 2013, 10, 1232-1238.	19.0	207
54	Application of FRET Biosensors in Energy Metabolism. Biophysical Journal, 2013, 104, 304a.	0.5	0

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55	3P133 ATP quantification and live-imaging in Xenopus laevis oocyte(09. Development &) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50	0.1	0
56	Visualization and Measurement of ATP Levels in Living Cells Replicating Hepatitis C Virus Genome RNA. PLoS Pathogens, 2012, 8, e1002561.	4.7	90
57	Principal Role of the Arginine Finger in Rotary Catalysis of F1-ATPase. Journal of Biological Chemistry, 2012, 287, 15134-15142.	3.4	37
58	Changes in Cytosolic ATP Levels and Intracellular Morphology during Bacteria-Induced Hypersensitive Cell Death as Revealed by Real-Time Fluorescence Microscopy Imaging. Plant and Cell Physiology, 2012, 53, 1768-1775.	3.1	29
59	Assessing Actual Contribution of IF1, Inhibitor of Mitochondrial FoF1, to ATP Homeostasis, Cell Growth, Mitochondrial Morphology, and Cell Viability. Journal of Biological Chemistry, 2012, 287, 18781-18787.	3.4	59
60	Spatiotemporal Correlations between Cytosolic and Mitochondrial Ca2+ Signals Using a Novel Red-Shifted Mitochondrial Targeted Cameleon. PLoS ONE, 2012, 7, e45917.	2.5	41
61	MRT letter: Expression of ATP sensor protein in <i>Caenorhabditis elegans</i>. Microscopy Research and Technique, 2012, 75, 15-19.	2.2	9
62	Ca²⁺ Regulation of Mitochondrial ATP Synthesis Visualized at the Single Cell Level. ACS Chemical Biology, 2011, 6, 709-715.	3.4	140
63	Quantitative Glucose and ATP Sensing in Mammalian Cells. Pharmaceutical Research, 2011, 28, 2745-2757.	3.5	53
64	Leucine Zipper EF Hand-containing Transmembrane Protein 1 (Letm1) and Uncoupling Proteins 2 and 3 (UCP2/3) Contribute to Two Distinct Mitochondrial Ca2+ Uptake Pathways. Journal of Biological Chemistry, 2011, 286, 28444-28455.	3.4	86
65	ATP concentration change in Caenorhabditis elegans. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 60-61.	1.0	0
66	Simultaneous ratiometric imaging of ATP and Ca2+ concentrations inside single living cells. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 126.	1.0	0
67	ATP Gradient Across the Innermitochondrial Membrane. Biophysical Journal, 2010, 98, 578a.	0.5	0
68	Reversible Dimerization of <i>Aequorea victoria</i> Fluorescent Proteins Increases the Dynamic Range of FRET-Based Indicators. ACS Chemical Biology, 2010, 5, 215-222.	3.4	99
69	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
70	Direct perfluoroalkylation of non-activated aromatic Câ€“H bonds of phenols. Tetrahedron Letters, 2008, 49, 4189-4191.	1.4	21
71	ATP Hydrolysis and Synthesis of a Rotary Motor V-ATPase from Thermus thermophilus. Journal of Biological Chemistry, 2008, 283, 20789-20796.	3.4	64
72	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

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73	3P-325 Spatio-temporal dynamics of intracellular ATP during apoptosis revealed by a genetically encoded fluorescent ATP indicator(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S177.	0.1	0
74	3P162 Determination the relationship between crystal structure and chemical state of F_1-ATPase by single molecule analysis(Molecular motors,Poster Presentations). Seibutsu Butsuri, 2007, 47, S243.	0.1	0
75	3P037 N-terminal domain of F_1-ATPase Îµ subunit affects ATP binding to the C-terminal domain(Proteins-structure and structure-function relationship,Poster Presentations). Seibutsu Butsuri, 2007, 47, S212.	0.1	0
76	New Structural Insights on Carbohydrate-active Enzymes. Journal of Applied Glycoscience (1999), 2007, 54, 95-102.	0.7	7
77	1P188 Reconstitution of V_1 complex of Thermus thermophilus V-ATPase revealed that ATP binding to the A subunit is crucial for V_1 formation(6. Macromolecular assembly,Poster) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 500 577 Td (Se	0.1	0
78	Crystallization and preliminary X-ray analysis of cytosolic Î±-mannosidase fromThermotoga maritima. Acta Crystallographica Section F: Structural Biology Communications, 2006, 62, 104-105.	0.7	3
79	Reconstitution in Vitro of V1 Complex of Thermus thermophilus V-ATPase Revealed That ATP Binding to the A Subunit Is Crucial for V1 Formation. Journal of Biological Chemistry, 2006, 281, 38582-38591.	3.4	16
80	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
81	Rotation, Structure, and Classification of Prokaryotic V-ATPase. Journal of Bioenergetics and Biomembranes, 2005, 37, 405-410.	2.3	62
82	Rotation scheme of V1-motor is different from that of F1-motor. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 17929-17933.	7.1	75
83	Transglycosylation Activity ofDictyoglomus thermophilumAmylase A. Bioscience, Biotechnology and Biochemistry, 2004, 68, 2369-2373.	1.3	25
84	The F Subunit of Thermus thermophilus V1-ATPase Promotes ATPase Activity but Is Not Necessary for Rotation. Journal of Biological Chemistry, 2004, 279, 18085-18090.	3.4	24
85	Crystal structure of a central stalk subunit C and reversible association/dissociation of vacuole-type ATPase. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 59-64.	7.1	130
86	Molecular evolution of the ATPase subunit of three archaeal sugar ABC transporters. Biochemical and Biophysical Research Communications, 2004, 319, 230-234.	2.1	20
87	Unique metal dependency of cytosolic Î±-mannosidase from Thermotoga maritima, a hyperthermophilic bacterium. Archives of Biochemistry and Biophysics, 2003, 415, 87-93.	3.0	23
88	Identification and Molecular Characterization of a Novel Type of Î±-galactosidase fromPyrococcus furiosus. Biocatalysis and Biotransformation, 2003, 21, 243-252.	2.0	27
89	Evidence for rotation of V1-ATPase. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 2312-2315.	7.1	185
90	Rotation of the Proteolipid Ring in the V-ATPase. Journal of Biological Chemistry, 2003, 278, 24255-24258.	3.4	82

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91	Subunit Arrangement in V-ATPase from Thermus thermophilus. Journal of Biological Chemistry, 2003, 278, 42686-42691.	3.4	52
92	Crystal Structures of 4-Î±-Glucanotransferase from Thermococcus litoralis and Its Complex with an Inhibitor. Journal of Biological Chemistry, 2003, 278, 19378-19386.	3.4	82
93	Identification of the Catalytic Residue ofThermococcus litoralis4-Î±-Glucanotransferase through Mechanism-Based Labelingâ€. Biochemistry, 2001, 40, 12400-12406.	2.5	38
94	Reaction Mechanism and Crystal Structure of 4-.ALPHA.-Glucanotransferase from a Hyperthermophilic Archaeon, Thermococcus litoralis.. Journal of Applied Glycoscience (1999), 2001, 48, 171-175.	0.7	7
95	High level expression of Thermococcus litoralis 4-Î±-glucanotransferase in a soluble form in Escherichia coli with a novel expression system involving minor arginine tRNAs and GroELS. FEBS Letters, 1999, 457, 393-396.	2.8	26
96	Cloning of the Gene for Inorganic Pyrophosphatase from a Thermoacidophilic Archaeon,Sulfolobussp. Strain 7, and Overproduction of the Enzyme by Coexpression of tRNA for Arginine Rare Codon. Bioscience, Biotechnology and Biochemistry, 1998, 62, 2408-2414.	1.3	26