

# Moritoshi Sato

## List of Publications by Year in descending order

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99  
papers

5,565  
citations

81900

39  
h-index

82547

72  
g-index

109  
all docs

109  
docs citations

109  
times ranked

5388  
citing authors

#	ARTICLE	IF	CITATIONS
1	Photoactivatable CRISPR-Cas9 for optogenetic genome editing. <i>Nature Biotechnology</i> , 2015, 33, 755-760.	17.5	521
2	Engineered pairs of distinct photoswitches for optogenetic control of cellular proteins. <i>Nature Communications</i> , 2015, 6, 6256.	12.8	318
3	CRISPR-Cas9-based Photoactivatable Transcription System. <i>Chemistry and Biology</i> , 2015, 22, 169-174.	6.0	291
4	Imaging dynamics of endogenous mitochondrial RNA in single living cells. <i>Nature Methods</i> , 2007, 4, 413-419.	19.0	271
5	Fluorescent indicators for imaging protein phosphorylation in single living cells. <i>Nature Biotechnology</i> , 2002, 20, 287-294.	17.5	268
6	Split Luciferase as an Optical Probe for Detecting Protein-Protein Interactions in Mammalian Cells Based on Protein Splicing. <i>Analytical Chemistry</i> , 2001, 73, 2516-2521.	6.5	255
7	Production of PtdInsP3 at endomembranes is triggered by receptor endocytosis. <i>Nature Cell Biology</i> , 2003, 5, 1016-1022.	10.3	169
8	A photoactivatable Cre-loxP recombination system for optogenetic genome engineering. <i>Nature Chemical Biology</i> , 2016, 12, 1059-1064.	8.0	150
9	CRISPR-Cas9-based photoactivatable transcription systems to induce neuronal differentiation. <i>Nature Methods</i> , 2017, 14, 963-966.	19.0	138
10	A Fluorescent Indicator for Detecting Protein-Protein Interactions in Vivo Based on Protein Splicing. <i>Analytical Chemistry</i> , 2000, 72, 5151-5157.	6.5	134
11	Fluorescent Indicators for Akt/Protein Kinase B and Dynamics of Akt Activity Visualized in Living Cells. <i>Journal of Biological Chemistry</i> , 2003, 278, 30945-30951.	3.4	130
12	A genetic approach to identifying mitochondrial proteins. <i>Nature Biotechnology</i> , 2003, 21, 287-293.	17.5	127
13	Fluorescent Indicators for Cyclic GMP Based on Cyclic GMP-Dependent Protein Kinase II and Green Fluorescent Proteins. <i>Analytical Chemistry</i> , 2000, 72, 5918-5924.	6.5	124
14	Locating a Protein-Protein Interaction in Living Cells via SplitRenillaLuciferase Complementation. <i>Analytical Chemistry</i> , 2003, 75, 4176-4181.	6.5	107
15	Potentiometric selectivity coefficients of ion-selective electrodes. Part II. Inorganic anions (IUPAC) Tj ETQq1 1 0.784314 rgBT /Overlod	1.9	103
16	Near-Infrared Optogenetic Genome Engineering Based on Photon-Upconversion Hydrogels. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 17827-17833.	13.8	103
17	Ginsenoside Re, a Main Phytosterol of Panax ginseng, Activates Cardiac Potassium Channels via a Nongenomic Pathway of Sex Hormones. <i>Molecular Pharmacology</i> , 2006, 70, 1916-1924.	2.3	91
18	A biliverdin-binding cyanobacteriochrome from the chlorophyll-bearing cyanobacterium <i>Acaryochloris marina</i> . <i>Scientific Reports</i> , 2015, 5, 7950.	3.3	91

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19	Superluminescent Variants of Marine Luciferases for Bioassays. <i>Analytical Chemistry</i> , 2011, 83, 8732-8740.	6.5	85
20	Protein Splicing-Based Reconstitution of Split Green Fluorescent Protein for Monitoring Protein-Protein Interactions in Bacteria: A Improved Sensitivity and Reduced Screening Time. <i>Analytical Chemistry</i> , 2001, 73, 5866-5874.	6.5	83
21	Imaging of Conformational Changes of Proteins with a New Environment-Sensitive Fluorescent Probe Designed for Site-Specific Labeling of Recombinant Proteins in Live Cells. <i>Analytical Chemistry</i> , 2001, 73, 2920-2928.	6.5	82
22	Imaging the nanomolar range of nitric oxide with an amplifier-coupled fluorescent indicator in living cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 14515-14520.	7.1	77
23	Cell-Based Indicator to Visualize Picomolar Dynamics of Nitric Oxide Release from Living Cells. <i>Analytical Chemistry</i> , 2006, 78, 8175-8182.	6.5	70
24	Imaging diacylglycerol dynamics at organelle membranes. <i>Nature Methods</i> , 2006, 3, 797-799.	19.0	68
25	Fluorescence Imaging-Based High-Throughput Screening of Fast- and Slow-Cycling LOV Proteins. <i>PLoS ONE</i> , 2013, 8, e82693.	2.5	65
26	Genetically Encoded Fluorescent Indicators To Visualize Protein Phosphorylation by Extracellular Signal-Regulated Kinase in Single Living Cells. <i>Analytical Chemistry</i> , 2007, 79, 2570-2575.	6.5	64
27	A split CRISPR-Cpf1 platform for inducible genome editing and gene activation. <i>Nature Chemical Biology</i> , 2019, 15, 882-888.	8.0	62
28	Single Color Fluorescent Indicators of Protein Phosphorylation for Multicolor Imaging of Intracellular Signal Flow Dynamics. <i>Analytical Chemistry</i> , 2004, 76, 6144-6149.	6.5	58
29	Split Gaussia Luciferase-Based Bioluminescence Template for Tracing Protein Dynamics in Living Cells. <i>Analytical Chemistry</i> , 2009, 81, 67-74.	6.5	55
30	Locating Inositol 1,4,5-Trisphosphate in the Nucleus and Neuronal Dendrites with Genetically Encoded Fluorescent Indicators. <i>Analytical Chemistry</i> , 2005, 77, 4751-4758.	6.5	52
31	An SPR-Based Screening Method for Agonist Selectivity for Insulin Signaling Pathways Based on the Binding of Phosphotyrosine to Its Specific Binding Protein. <i>Analytical Chemistry</i> , 2000, 72, 6-11.	6.5	51
32	Rapidly Reversible Manipulation of Molecular Activity with Dual Chemical Dimerizers. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 6450-6454.	13.8	50
33	A Genetically Encoded Fluorescent Indicator Capable of Discriminating Estrogen Agonists from Antagonists in Living Cells. <i>Analytical Chemistry</i> , 2004, 76, 2181-2186.	6.5	48
34	Genetically Engineered Photoinducible Homodimerization System with Improved Dimer-Forming Efficiency. <i>ACS Chemical Biology</i> , 2014, 9, 617-621.	3.4	48
35	Fine-Tuning of Hydrophobicity in Amphiphilic Polyaspartamide Derivatives for Rapid and Transient Expression of Messenger RNA Directed Toward Genome Engineering in Brain. <i>ACS Central Science</i> , 2019, 5, 1866-1875.	11.3	48
36	Lipid Raft-Specific Knockdown of Src Family Kinase Activity Inhibits Cell Adhesion and Cell Cycle Progression of Breast Cancer Cells. <i>Cancer Research</i> , 2007, 67, 8139-8148.	0.9	47

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37	Rational conversion of chromophore selectivity of cyanobacteriochromes to accept mammalian intrinsic biliverdin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 8301-8309.	7.1	46
38	Photoconversion and Fluorescence Properties of a Red/Green-Type Cyanobacteriochrome AM1_CO023g2 That Binds Not Only Phycocyanobilin But Also Biliverdin. <i>Frontiers in Microbiology</i> , 2016, 7, 588.	3.5	44
39	Bioluminescent coelenterazine derivatives with imidazopyrazinone C-6 extended substitution. <i>Chemical Communications</i> , 2015, 51, 391-394.	4.1	42
40	Amino acid taste receptor regulates insulin secretion in pancreatic $\beta$ -cell line MIN6 cells. <i>Genes To Cells</i> , 2011, 16, 608-616.	1.2	40
41	Imaging protein phosphorylation by fluorescence in single living cells. <i>Methods</i> , 2004, 32, 451-455.	3.8	39
42	Integrated Molecule-Format Bioluminescent Probe for Visualizing Androgenicity of Ligands Based on the Intramolecular Association of Androgen Receptor with Its Recognition Peptide. <i>Analytical Chemistry</i> , 2007, 79, 1874-1880.	6.5	39
43	Epidermal Growth Factor Directs Sex-specific Steroid Signaling through Src Activation. <i>Journal of Biological Chemistry</i> , 2007, 282, 10697-10706.	3.4	38
44	An efficient surface modification using 2-methacryloyloxyethyl phosphorylcholine to control cell attachment via photochemical reaction in a microchannel. <i>Lab on A Chip</i> , 2010, 10, 1937.	6.0	37
45	A Fluorescent Indicator for Tyrosine Phosphorylation-Based Insulin Signaling Pathways. <i>Analytical Chemistry</i> , 1999, 71, 3948-3954.	6.5	36
46	Photoactivatable Cre recombinase 3.0 for in vivo mouse applications. <i>Nature Communications</i> , 2020, 11, 2141.	12.8	36
47	Emerging Approaches for Spatiotemporal Control of Targeted Genome with Inducible CRISPR-Cas9. <i>Analytical Chemistry</i> , 2018, 90, 429-439.	6.5	33
48	A Fluorescent Indicator To Visualize Activities of the Androgen Receptor Ligands in Single Living Cells. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 2707-2712.	13.8	32
49	Highly bright and stable NIR-BRET with blue-shifted coelenterazine derivatives for deep-tissue imaging of molecular events <i>in vivo</i> . <i>Theranostics</i> , 2019, 9, 2646-2661.	10.0	31
50	Measurement of intracellular IP3 during Ca <sup>2+</sup> oscillations in mouse eggs with GFP-based FRET probe. <i>Biochemical and Biophysical Research Communications</i> , 2006, 345, 781-788.	2.1	27
51	Control of Adipogenic Differentiation in Mesenchymal Stem Cells via Endogenous Gene Activation Using CRISPR-Cas9. <i>ACS Synthetic Biology</i> , 2017, 6, 2191-2197.	3.8	25
52	Molecular characterization of DXCF cyanobacteriochromes from the cyanobacterium <i>Acaryochloris marina</i> identifies a blue-light power sensor. <i>Journal of Biological Chemistry</i> , 2018, 293, 1713-1727.	3.4	25
53	Optical manipulation of the alpha subunits of heterotrimeric G proteins using photoswitchable dimerization systems. <i>Scientific Reports</i> , 2016, 6, 35777.	3.3	24
54	Cell-Based Fluorescent Indicator To Visualize Brain-Derived Neurotrophic Factor Secreted from Living Neurons. <i>ACS Chemical Biology</i> , 2008, 3, 352-358.	3.4	23

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55	Molecular Tension-Indexed Bioluminescent Probe for Determining Protein-Protein Interactions. <i>Bioconjugate Chemistry</i> , 2009, 20, 2324-2330.	3.6	23
56	Azide- and Dye-Conjugated Coelenterazine Analogues for a Multiplex Molecular Imaging Platform. <i>Bioconjugate Chemistry</i> , 2018, 29, 1922-1931.	3.6	23
57	Highly Sensitive Bioluminescent Probe for Thiol Detection in Living Cells. <i>Chemistry - an Asian Journal</i> , 2018, 13, 648-655.	3.3	22
58	A red light-responsive photoswitch for deep tissue optogenetics. <i>Nature Biotechnology</i> , 2022, 40, 1672-1679.	17.5	22
59	Hydrogen peroxide depletes phosphatidylinositol-3-phosphate from endosomes in a p38 MAPK-dependent manner and perturbs endocytosis. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2011, 1813, 784-801.	4.1	21
60	Biothiol-Activatable Bioluminescent Coelenterazine Derivative for Molecular Imaging in Vitro and in Vivo. <i>Analytical Chemistry</i> , 2019, 91, 9546-9553.	6.5	19
61	An Assay Method for Evaluating Chemical Selectivity of Agonists for Insulin Signaling Pathways Based on Agonist-Induced Phosphorylation of a Target Peptide. <i>Analytical Chemistry</i> , 1998, 70, 2345-2352.	6.5	17
62	Circularly Permutated Bioluminescent Probes for Illuminating Ligand-Activated Protein Dynamics. <i>Bioconjugate Chemistry</i> , 2008, 19, 2480-2486.	3.6	17
63	An allylated firefly luciferin analogue with luciferase specific response in living cells. <i>Chemical Communications</i> , 2018, 54, 1774-1777.	4.1	17
64	Genetically Encoded Bioluminescent Indicators for Stress Hormones. <i>Analytical Chemistry</i> , 2009, 81, 3760-3768.	6.5	15
65	Near-Infrared Bioluminescence Imaging with a through-Bond Energy Transfer Cassette. <i>ChemBioChem</i> , 2019, 20, 1919-1923.	2.6	15
66	Assembly Domain-Based Optogenetic System for the Efficient Control of Cellular Signaling. <i>ACS Synthetic Biology</i> , 2017, 6, 1086-1095.	3.8	14
67	A fluorescent indicator to visualize ligand-induced receptor/coactivator interactions for screening of peroxisome proliferator-activated receptor $\beta$ ligands in living cells. <i>Biosensors and Bioelectronics</i> , 2007, 22, 2564-2569.	10.1	13
68	Methods of Analysis for Chemicals that Promote/Disrupt Cellular Signaling. <i>Analytical Sciences</i> , 2002, 18, 503-516.	1.6	12
69	Near-Infrared Optogenetic Genome Engineering Based on Photon-Upconversion Hydrogels. <i>Angewandte Chemie</i> , 2019, 131, 17991-17997.	2.0	12
70	Photocontrollable mononegaviruses. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 11587-11589.	7.1	12
71	Establishment of a tTA-dependent photoactivatable Cre recombinase knock-in mouse model for optogenetic genome engineering. <i>Biochemical and Biophysical Research Communications</i> , 2020, 526, 213-217.	2.1	12
72	Optical probes to identify the glucocorticoid receptor ligands in living cells. <i>Steroids</i> , 2007, 72, 949-954.	1.8	11

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73	Protein Engineering of Dual-Cys Cyanobacteriochrome AM1_1186g2 for Biliverdin Incorporation and Far-Red/Blue Reversible Photoconversion. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2935.	4.1	11
74	Imaging molecular events in single living cells. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 386, 435-443.	3.7	10
75	Cell membrane dynamics induction using optogenetic tools. <i>Biochemical and Biophysical Research Communications</i> , 2018, 506, 387-393.	2.1	9
76	An Engineered Biliverdin-Compatible Cyanobacteriochrome Enables a Unique Ultrafast Reversible Photoswitching Pathway. <i>International Journal of Molecular Sciences</i> , 2021, 22, 5252.	4.1	9
77	Photoactivatable Cre knock-in mice for spatiotemporal control of genetic engineering in vivo. <i>Laboratory Investigation</i> , 2021, 101, 125-135.	3.7	7
78	Transient electronic and vibrational signatures during reversible photoswitching of a cyanobacteriochrome photoreceptor. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2021, 250, 119379.	3.9	7
79	Induction of Signal Transduction by Using Non-Channelrhodopsin-Type Optogenetic Tools. <i>ChemBioChem</i> , 2018, 19, 1217-1231.	2.6	6
80	In vivo imaging of T cell lymphoma infiltration process at the colon. <i>Scientific Reports</i> , 2018, 8, 3978.	3.3	6
81	Membrane Dynamics Induced by a Phosphatidylinositol 3,4,5-Trisphosphate Optogenetic Tool. <i>Analytical Sciences</i> , 2019, 35, 57-63.	1.6	6
82	Screening method for substrates of multidrug resistance-associated protein. <i>Analytica Chimica Acta</i> , 2000, 423, 197-203.	5.4	5
83	Asymmetrical diacylglycerol dynamics on the cytosolic and luminal sides of a single endomembrane in living cells. <i>Scientific Reports</i> , 2015, 5, 12960.	3.3	5
84	Optogenetic regulation of embryo implantation in mice using photoactivatable CRISPR-Cas9. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 28579-28581.	7.1	4
85	The Cruciality of Single Amino Acid Replacement for the Spectral Tuning of Biliverdin-Binding Cyanobacteriochromes. <i>International Journal of Molecular Sciences</i> , 2020, 21, 6278.	4.1	4
86	Genetically Encoded Fluorescent Biosensors for Live Cell Imaging of Lipid Dynamics. <i>Methods in Molecular Biology</i> , 2014, 1071, 73-81.	0.9	4
87	History-dependent physiological adaptation to lethal genetic modification under antibiotic exposure. <i>ELife</i> , 2022, 11, .	6.0	4
88	Probing Chemical Processes in Living Cells: Applications for Assay and Screening of Chemicals that Disrupt Cellular Signaling Pathways. <i>Bulletin of the Chemical Society of Japan</i> , 2002, 75, 1423-1433.	3.2	3
89	Genetically encoded fluorescent indicators to visualise protein phosphorylation by c-Jun NH <sub>2</sub> -terminal kinase in living cells. <i>Supramolecular Chemistry</i> , 2010, 22, 434-439.	1.2	3
90	Cell-Based Biosensor to Visualize Nitric Oxide Release from Living Cells for Toxicity Assessment. <i>Methods in Molecular Biology</i> , 2021, 2240, 57-64.	0.9	3

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91	Genetically Encoded Fluorescent Indicators to Visualize Protein Phosphorylation in Living Cells. <i>Methods in Molecular Biology</i> , 2016, 1360, 149-156.	0.9	2
92	Genetically Encoded Fluorescent Indicators to Visualize Molecular Processes in Living Cells. <i>Bulletin of the Chemical Society of Japan</i> , 2008, 81, 183-192.	3.2	1
93	Repetitive short-pulsed illumination efficiently activates photoactivatable Cre as continuous illumination in embryonic stem cells and preimplantation embryos of transgenic mouse. <i>Genesis</i> , 2021, 59, e23457.	1.6	1
94	FRET-based reporters for intracellular enzyme activity. , 2005, , .		0
95	Methods to Visualize Molecular Processes in Living Cells Based on Genetically Encoded Fluorescent Indicators. <i>Bunseki Kagaku</i> , 2008, 57, 219-226.	0.2	0
96	Manipulating Living Systems by Light. <i>Seibutsu Butsuri</i> , 2018, 58, 308-312.	0.1	0
97	Optical Control of Genome Editing by Photoactivatable Cas9. <i>Methods in Molecular Biology</i> , 2021, 2312, 225-233.	0.9	0
98	Fluorescent Probes to Visualize Lipid Messengers. <i>Membrane</i> , 2012, 37, 164-167.	0.0	0
99	Cover Image, Volume 59, Issue 12. <i>Genesis</i> , 2021, 59, .	1.6	0