Yasushi Imamoto

List of Publications by Year
in descending order

113	3,101	126907	175258
papers	citations	33 h-index	52 g-index

116	116	116	1844
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Novel Photochromic Molecules Based on 4,5-Dithienyl Thiazole with Fast Thermal Bleaching Rate. Chemistry of Materials, 2007, 19, 3479-3483.	6.7	148
2	Photoreaction Cycle of Photoactive Yellow Protein fromEctothiorhodospira halophilaStudied by Low-Temperature Spectroscopyâ€. Biochemistry, 1996, 35, 14047-14053.	2.5	132
3	Reconstitution photoactive yellow protein from apoprotein and p -coumaric acid derivatives. FEBS Letters, 1995, 374, 157-160.	2.8	121
4	Femtosecond-picosecond fluorescence studies on excited state dynamics of photoactive yellow protein from Ectothiorhodospira halophila. Chemical Physics Letters, 1997, 270, 267-272.	2.6	104
5	Structure and Photoreaction of Photoactive Yellow Protein, a Structural Prototype of the PAS Domain Superfamilyâ€. Photochemistry and Photobiology, 2007, 83, 40-49.	2.5	95
6	Photochemical Properties of Mammalian Melanopsin. Biochemistry, 2012, 51, 5454-5462.	2.5	94
7	Evidence for Proton Transfer from Glu-46 to the Chromophore during the Photocycle of Photoactive Yellow Protein. Journal of Biological Chemistry, 1997, 272, 12905-12908.	3.4	88
8	A Single CH/Ï€ Weak Hydrogen Bond Governs Stability and the Photocycle of the Photoactive Yellow Protein. Journal of the American Chemical Society, 2006, 128, 10646-10647.	13.7	81
9	Primary Photoreaction of Photoactive Yellow Protein Studied by Subpicosecondâ^'Nanosecond Spectroscopy. Biochemistry, 2001, 40, 6047-6052.	2.5	78
10	Low-Temperature Fourier Transform Infrared Spectroscopy of Photoactive Yellow Protein. Biochemistry, 2001, 40, 8997-9004.	2.5	73
11	Photochemical and Biochemical Properties of Chicken Blue-Sensitive Cone Visual Pigment. Biochemistry, 1997, 36, 12773-12779.	2.5	71
12	Cone visual pigments. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 664-673.	1.0	69
13	Light-Induced Global Conformational Change of Photoactive Yellow Protein in Solution. Biochemistry, 2002, 41, 13595-13601.	2.5	66
14	The primary structure of iodopsin, a chicken red-sensitive cone pigment. FEBS Letters, 1990, 272, 128-132.	2.8	65
15	Effects of Modification of Protein Nanospace Structure and Change of Temperature on the Femtosecond to Picosecond Fluorescence Dynamics of Photoactive Yellow Protein. Journal of Physical Chemistry B, 2000, 104, 5191-5199.	2.6	65
16	Evolution of Mammalian Opn5 as a Specialized UV-absorbing Pigment by a Single Amino Acid Mutation. Journal of Biological Chemistry, 2014, 289, 3991-4000.	3.4	63
17	Environmental Effects on the Femtosecondâ^'Picosecond Fluorescence Dynamics of Photoactive Yellow Protein:Â Chromophores in Aqueous Solutions and in Protein Nanospaces Modified by Site-Directed Mutagenesis. Journal of Physical Chemistry B, 1998, 102, 7695-7698.	2.6	61
18	Structural Change of Site-Directed Mutants of PYP: New Dynamics during pR State. Biophysical Journal, 2002, 83, 1567-1577.	0.5	61

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19	The Last Phase of the Reprotonation Switch in Bacteriorhodopsin:â€‰ The Transition between the M-Type and the N-Type Protein Conformation Depends on Hydration. Biochemistry, 1997, 36, 12282-12287.	2.5	60
20	Ultrafast photoreactions in protein nanospaces as revealed by fs fluorescence dynamics measurements on photoactive yellow protein and related systemsDedicated to Professor Dr Z. R. Grabowski and Professor Dr J. Wirz on the occasions of their 75th and 60th birthdays.. Physical Chemistry Chemical Physics, 2003, 5, 2454-2460.	2.8	57
21	Presence of Two Rhodopsin Intermediates Responsible for Transducin Activationâ€. Biochemistry, 1997, 36, 14173-14180.	2.5	55
22	Roles of Amino Acid Residues near the Chromophore of Photoactive Yellow Proteinâ€. Biochemistry, 2001, 40, 4679-4685.	2.5	54
23	Concentration-Dependent Tetramerization of Bovine Visual Arrestin. Biophysical Journal, 2003, 85, 1186-1195.	0.5	52
24	Ultrafast photoinduced reaction dynamics of photoactive yellow protein (PYP): observation of coherent oscillations in the femtosecond fluorescence decay dynamics. Chemical Physics Letters, 2002, 352, 220-225.	2.6	48
25	Origin of the low thermal isomerization rate of rhodopsin chromophore. Scientific Reports, 2015, 5, 11081.	3.3	45
26	NANOSECOND LASER PHOTOLYSIS OF PHOBORHODOPSIN: FROM Natronobacterium pharaonis APPEARANCE OF KL AND L INTERMEDIATES IN THE PHOTOCYCLE AT ROOM TEMPERATURE. Photochemistry and Photobiology, 1992, 56, 1129-1134.	2.5	43
27	Temperature-Dependent Volume Change of the Initial Step of the Photoreaction of Photoactive Yellow Protein (PYP) Studied by Transient Grating. Journal of the American Chemical Society, 2000, 122, 8524-8528.	13.7	43
28	Light-Induced Conformational Changes of Rhodopsin Probed by Fluorescent Alexa594 Immobilized on the Cytoplasmic Surface. Biochemistry, 2000, 39, 15225-15233.	2.5	42
29	Structural Effects on the Ultrafast Photoisomerization of Photoactive Yellow Protein. Transient Absorption Spectroscopy of Two Point Mutants. Journal of Physical Chemistry C, 2009, 113, 11605-11613.	3.1	41
30	Conformational Changes of PYP Monitored by Diffusion Coefficient: Effect of N-Terminal Î±-Helices. Biophysical Journal, 2006, 90, 3686-3693.	0.5	40
31	Role of arginine 52 on the primary photoinduced events in the PYP photocycle. Chemical Physics Letters, 2007, 434, 320-325.	2.6	39
32	Direct observation of the thermal equilibria among lumirhodopsin, metarhodopsin I, and metarhodopsin II in chicken rhodopsin. Biochemistry, 1994, 33, 14351-14358.	2.5	38
33	Light Induces Destabilization of Photoactive Yellow Proteinâ€. Biochemistry, 2001, 40, 2854-2859.	2.5	37
34	Photoisomerization by Hula Twist: 2,2â€²-Dimethylstilbene and a Ring-Fused Analogue. Angewandte Chemie - International Edition, 2003, 42, 3630-3633.	13.8	33
35	Conformational Changes in the N-Terminal Region of Photoactive Yellow Protein: A Time-Resolved Diffusion Study. Biophysical Journal, 2008, 94, 2187-2193.	0.5	33
36	Adaptation of cone pigments found in green rods for scotopic vision through a single amino acid mutation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5437-5442.	7.1	32

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37	Role of C-terminal region ofStaphylococcal nuclease for foldability, stability, and activity. Proteins: Structure, Function and Bioinformatics, 2002, 49, 255-265.	2.6	30
38	pH-dependent Equilibrium between Long Lived Near-UV Intermediates of Photoactive Yellow Protein. Journal of Biological Chemistry, 2006, 281, 4318-4325.	3.4	29
39	Rod Visual Pigment Optimizes Active State to Achieve Efficient G Protein Activation as Compared with Cone Visual Pigments. Journal of Biological Chemistry, 2014, 289, 5061-5073.	3.4	29
40	Evolutionary steps involving counterion displacement in a tunicate opsin. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6028-6033.	7.1	29
41	Opn5L1 is a retinal receptor that behaves as a reverse and self-regenerating photoreceptor. Nature Communications, 2018, 9, 1255.	12.8	29
42	SHAPE OF THE CHROMOPHOIW BINDING SITE IN pharaonis PHOBORHODOPSIN FROM A STUDY USING RETINAL ANALOGS. Photochemistry and Photobiology, 1994, 60, 388-393.	2.5	27
43	Structure around C6â^'C7Bond of the Chromophore in Bathorhodopsin:Â Low-Temperature Spectroscopy of 6s-cis-Locked Bicyclic Rhodopsin Analogsâ€. Biochemistry, 1996, 35, 6257-6262.	2.5	27
44	Spectroscopic Characterization of the Photocycle Intermediates of Photoactive Yellow Proteinâ€. Biochemistry, 2001, 40, 14336-14343.	2.5	26
45	Stilbene analogs in Hula-twist photoisomerization. Photochemical and Photobiological Sciences, 2006, 5, 874.	2.9	26
46	Efficiencies of Activation of Transducin by Cone and Rod Visual Pigments. Biochemistry, 2013, 52, 3010-3018.	2.5	26
47	Time-Resolved Thermodynamics:Â Heat Capacity Change of Transient Species during Photoreaction of PYP. Journal of the American Chemical Society, 2006, 128, 1002-1008.	13.7	25
48	Ultrafast Carbonyl Motion of the Photoactive Yellow Protein Chromophore Probed by Femtosecond Circular Dichroism. Journal of the American Chemical Society, 2013, 135, 14637-14643.	13.7	25
49	CONFORMATIONAL ANALYSIS OF THE RHODOPSIN CHROMOPHORE USING BICYCLIC RETINAL ANALOGUES. Photochemistry and Photobiology, 1992, 56, 915-919.	2.5	24
50	Analysis of the Excited-State Dynamics of 13-trans-locked-Bacteriorhodopsin. Journal of Physical Chemistry A, 1997, 101, 412-417.	2.5	22
51	A Biosensor in the Time Domain Based on the Diffusion Coefficient Measurement:â€‰ Intermolecular Interaction of an Intermediate of Photoactive Yellow Protein. Analytical Chemistry, 2005, 77, 6625-6629.	6.5	22
52	Mechanistic Pathways for the Photoisomerization Reaction of the Anchored, Tethered Chromophore of the Photoactive Yellow Protein and its MutantsÂ¶. Photochemistry and Photobiology, 2002, 76, 584.	2.5	21
53	Characterization of the Solution Structure of the M Intermediate of Photoactive Yellow Protein Using High-Angle Solution X-Ray Scattering. Biophysical Journal, 2007, 92, 3633-3642.	0.5	20
54	Direct observation of the pH-dependent equilibrium between L-like and M intermediates of photoactive yellow protein. FEBS Letters, 2004, 577, 75-80.	2.8	19

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55	Photochemical Nature of Parietopsin. Biochemistry, 2012, 51, 1933-1941.	2.5	19
56	Diversity of Active States in TMT Opsins. PLoS ONE, 2015, 10, e0141238.	2.5	19
57	Low-temperature spectrophotometry of phoborhodopsin. FEBS Letters, 1988, 236, 333-336.	2.8	18
58	Comparative Studies on the Late Bleaching Processes of Four Kinds of Cone Visual Pigments and Rod Visual Pigment. Biochemistry, 2012, 51, 4300-4308.	2.5	16
59	Single-Molecule Observation of the Ligand-Induced Population Shift of Rhodopsin, A G-Protein-Coupled Receptor. Biophysical Journal, 2014, 106, 915-924.	0.5	16
60	Effect of Organic Anions on the Photoreaction of Photoactive Yellow Protein. Journal of Biochemistry, 2002, 132, 257-263.	1.7	15
61	EXCITED STATE DYNAMICS OF RETINAL PROTEINS AS STUDIED BY FOURIER TRANSFORM OF OPTICAL ABSORPTION SPECTRUMâ€"I. DEVELOPMENT OF ANALYTICAL METHOD. Photochemistry and Photobiology, 1992, 56, 977-987.	2.5	14
62	Array of Aromatic Amino Acid Side Chains Located Near the Chromophore of Photoactive Yellow Proteinâ€. Photochemistry and Photobiology, 2007, 83, 280-286.	2.5	13
63	Ultrafast Time-Resolved Pumpâ€"Probe Spectroscopy of PYP by a Sub-8 fs Pulse Laser at 400 nm. Journal of Physical Chemistry B, 2013, 117, 4818-4826.	2.6	12
64	Intramolecular Interactions That Induce Helical Rearrangement upon Rhodopsin Activation. Journal of Biological Chemistry, 2014, 289, 13792-13800.	3.4	11
65	Creation of photocyclic vertebrate rhodopsin by single amino acid substitution. ELife, 2022, 11, .	6.0	11
66	Thermal recovery of iodopsin from its meta I-intermediate. FEBS Letters, 1994, 354, 165-168.	2.8	10
67	Structure and photobleaching process of chicken iodopsin. Biophysical Chemistry, 1995, 56, 57-62.	2.8	10
68	Preparation of Large Crystals of Photoactive Yellow Protein for Neutron Diffraction and High Resolution Crystal Structure Analysisâ€. Photochemistry and Photobiology, 2007, 83, 336-338.	2.5	10
69	Thermal Recovery of Iodopsin from Photobleaching Intermediates^{â€}. Photochemistry and Photobiology, 2008, 84, 941-948.	2.5	10
70	Diverse Roles of Glycine Residues Conserved in Photoactive Yellow Proteins. Biophysical Journal, 2008, 94, 3620-3628.	0.5	10
71	Helical rearrangement of photoactivated rhodopsin in monomeric and dimeric forms probed by high-angle X-ray scattering. Photochemical and Photobiological Sciences, 2015, 14, 1965-1973.	2.9	10
72	Red-Tuning of the Channelrhodopsin Spectrum Using Long Conjugated Retinal Analogues. Biochemistry, 2018, 57, 5544-5556.	2.5	10

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73	Interaction Between Nâ€terminal Loop and Î²â€Scaffold of Photoactive Yellow Protein^{â€,â€¡}. Photochemistry and Photobiology, 2008, 84, 1031-1037.	2.5	9
74	Functional analysis of the second extracellular loop of rhodopsin by characterizing split variants. Photochemical and Photobiological Sciences, 2010, 9, 1490-1497.	2.9	9
75	Shift in Conformational Equilibrium Induces Constitutive Activity of G-Protein-Coupled Receptor, Rhodopsin. Journal of Physical Chemistry B, 2018, 122, 4838-4843.	2.6	9
76	Rapid Oxidation Following Photoreduction in the Avian Cryptochrome4 Photocycle. Biochemistry, 2020, 59, 3615-3625.	2.5	8
77	Evolutionary adaptation of visual pigments in geckos for their photic environment. Science Advances, 2021, 7, eabj1316.	10.3	7
78	Attempt to simplify the amino-acid sequence of photoactive yellow protein with a set of simple rules. Proteins: Structure, Function and Bioinformatics, 2007, 67, 821-833.	2.6	6
79	A new rhodopsin analog involving 11Z-8,18-ethanoretinal as a chromophore.. Chemical and Pharmaceutical Bulletin, 1993, 41, 793-795.	1.3	5
80	Mapping of the local environmental changes in proteins by cysteine scanning. Biophysics (Nagoya-shi,) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.4	5
81	Amino acid residue at position 188 determines the UV-sensitive bistable property of vertebrate non-visual opsin Opn5. Communications Biology, 2022, 5, 63.	4.4	5
82	Lowâ€temperature Spectroscopy of Met100Ala Mutant of Photoactive Yellow Protein^{â€â€¡}. Photochemistry and Photobiology, 2008, 84, 970-976.	2.5	4
83	Synthesis of One Double Bond-Inserted Retinal Analogs and Their Binding Experiments with Opsins: Preparation of Novel Red-Shifted Channelrhodopsin Variants. Chemical and Pharmaceutical Bulletin, 2020, 68, 265-272.	1.3	4
84	Alternative Formation of Red-Shifted Channelrhodopsins: Noncovalent Incorporation with Retinal-Based Enamine-Type Schiff Bases and Mutated Channelopsin. Chemical and Pharmaceutical Bulletin, 2017, 65, 356-358.	1.3	3
85	Conformational Differences among Metarhodopsin I, Metarhodopsin II, and Opsin Probed by Wide-Angle X-ray Scattering. Journal of Physical Chemistry B, 2019, 123, 9134-9142.	2.6	1
86	The Progress and Problem of X-ray Crystallography of Photocycle Intermediate of Photoactive Yellow Protein.. Seibutsu Butsuri, 2002, 42, 162-167.	0.1	1
87	1P146 Attempt to understand the information encoded in the amino acid sequence of photoactive yellow protein by the simplification of sequence(4. Protein engineering,Poster) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 177 Td	0.1	
88	1P110 Characterization of conformational rearrangement during the folding process of Staphylococcal nuclease(3. Protein folding and misfolding (I),Poster Session,Abstract,Meeting) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 13	0.1	
89	2P092 Elucidation of the unfolding-state and the folding process of the disulfide-bond introduced mutant of Staphylococcal nuclease(31. Protein folding and misfolding (II),Poster) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 97 Td	0.1	
90	2P342 The Photocycle of Met100Ala Mutant of Photoactive Yellow Protein Studied by Low-Temperature Spectroscopy(42. Sensory signal transduction,Poster Session,Abstract,Meeting Program of EABS &) Tj ETQq0 0 0 rgBT /Overlock 10	0.1	

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91	2P343 Isolation of Photoactive Yellow Protein associated protein from Rhodobacter capsulatus(42.) Tj ETQq1 1 0.784314 rgBT /Overlock Butsuri, 2006, 46, S381.	0.1	0
92	2P339 Neutron diffraction and high resolution X-ray crystal structure analysis of photoactive yellow protein(42. Sensory signal transduction,Poster Session,Abstract,Meeting Program of EABS & BSJ) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.1	0
93	2P343 Construction and expression of rhodopsin mutants for analyzing the function of the second extracellular loop(Photobiology-vision and photoreception,Poster Presentations). Seibutsu Butsuri, 2007, 47, S198.	0.1	0
94	Mechanistic Pathways for the Photoisomerization Reaction of the Anchored, Tethered Chromophore of the Photoactive Yellow Protein and its MutantsÂ¶. Photochemistry and Photobiology, 2002, 76, 584-589.	2.5	0
95	1P-272 Photoreaction of parietopsin(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S64.	0.1	0
96	2S4-6 Protein structural changes : tertiary-structure-based model and real reaction(2S4 What protein) Tj ETQq0 0 0 rgBT /Overlock 10 T Butsuri, 2008, 48, S10.	0.1	0
97	1P-271 Analysis of transducin activation efficiencies of cone visual pigments(The 46th Annual Meeting) Tj ETQq1 1 0.784314 rgBT /O	0.1	0
98	1P-273 Analysis of the regions in the C-terminus of G protein alpha subunit controlling the binding and activation efficiency by rhodopsin(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S64.	0.1	0
99	1P-276 Comparative studies of the photoreactions of all-trans-retinal-containing opsins, peropsin and retinochrome(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S65.	0.1	0
100	2TA2-02 The role of C terminus of alpha subunit in the GDP-GTP exchange reaction on G protein.(The) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	0
101	2TA2-01 Detection of the binding of activated rhodopsin and transducin by using fluorescence resonance energy transfer(FRET)(The 47th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2009, 49, S40.	0.1	0
102	1P-225 Exploring Molecular Functions of Parietopsin(Photobiology:Vision & Photoreception, The 47th) Tj ETQq0 0 0 rgBT /Overlock 10 T	0.1	0
103	1TP2-06 Exploring Molecular Functions of Parietopsin(The 47th Annual Meeting of the Biophysical) Tj ETQq1 1 0.784314 rgBT /Overlock	0.1	0
104	2P275 1A1450 Single-molecule detection of rhodopsin activation(The 48th Annual Meeting of the) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.1	0
105	3P280 Direct interlink between the C-terminus of alpha subunit and the nucleotide binding site in G protein activation by rhodopsin(Photobiology: Vision & Photoreception,The 48th Annual Meeting of) Tj ETQq1 1 0.784314 rgBT /Over	0.1	0
106	1Q1448 P65 Analysis of photobleaching processes of rhodopsin and cone pigments in nanodiscs(Photobiology: Vision & Photoreception 1,The 49th Annual Meeting of the Biophysical) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	0
107	1Q1424 Single-molecule detection of conformational equilibria in rhodopsin(Photobiology: Vision &) Tj ETQq1 1 0.784314 rgBT /Over 51, S70.	0.1	0
108	1Q1436 Exploring the molecular function of Parietopsin(Photobiology: Vision & Photoreception) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.1	0

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109	3P246 Single-molecule analyses of the activation mechanisms of G proteins in constitutively active mutant of G protein-coupled receptor(18A. Photobiology: Vision & Photoreception,Poster). Seibutsu Butsuri, 2013, 53, S252.	0.1	0
110	Foreword to a Special Issue of â€œLight to Maintain Life and Light to Observe Life: Seven-colored Light Illuminating Biophysicsâ€• Seibutsu Butsuri, 2015, 55, 289-290.	0.1	0
111	Regulation of Photocycle Kinetics of Photoactive Yellow Protein by Modulating Flexibility of the Î²-Turn. Journal of Physical Chemistry B, 2020, 124, 1452-1459.	2.6	0
112	Time and Frequency Domain Investigations on Ultrafast Photoreaction Dynamics of Photoactive Yellow Protein (PYP). The Review of Laser Engineering, 2004, 32, 114-120.	0.0	0
113	3TA2-04 Functional analysis of all-trans-retinal-containing opsin peropsin(The 47th Annual Meeting of) Tj ETQq1 1 0.784314 rgBT /Ov	0.1	0