Akihisa Terakita

List of Publications by Year in descending order

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62	3,685	147726 31	143943 57
papers	citations	h-index	g-index

65	65	65	2420
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optogenetic Potentials of Diverse Animal Opsins: Parapinopsin, Peropsin, LWS Bistable Opsin. Advances in Experimental Medicine and Biology, 2021, 1293, 141-151.	0.8	10
2	Functional identification of an opsin kinase underlying inactivation of the pineal bistable opsin parapinopsin in zebrafish. Zoological Letters, 2021, 7, 1.	0.7	6
3	Insights into the evolutionary origin of the pineal color discrimination mechanism from the river lamprey. BMC Biology, 2021, 19, 188.	1.7	5
4	Letter to the editor. Visual Neuroscience, 2020, 37, E009.	0.5	2
5	The non-visual opsins expressed in deep brain neurons projecting to the retina in lampreys. Scientific Reports, 2020, 10, 9669.	1.6	8
6	From extraocular photoreception to pigment movement regulation: a new control mechanism of the lanternshark luminescence. Scientific Reports, 2020, 10, 10195.	1.6	13
7	Crystal structure of jumping spider rhodopsin-1 as a light sensitive GPCR. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14547-14556.	3.3	48
8	The counterionâ€“retinylidene Schiff base interaction of an invertebrate rhodopsin rearranges upon light activation. Communications Biology, 2019, 2, 180.	2.0	31
9	The Two-Photon Reversible Reaction of the Bistable Jumping Spider Rhodopsin-1. Biophysical Journal, 2019, 116, 1248-1258.	0.2	18
10	Spectral tuning mediated by helix III in butterfly long wavelength-sensitive visual opsins revealed by heterologous action spectroscopy. Zoological Letters, 2019, 5, 35.	0.7	20
11	Shark genomes provide insights into elasmobranch evolution and the origin of vertebrates. Nature Ecology and Evolution, 2018, 2, 1761-1771.	3.4	197
12	Color opponency with a single kind of bistable opsin in the zebrafish pineal organ. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11310-11315.	3.3	23
13	Convergent evolution of tertiary structure in rhodopsin visual proteins from vertebrates and box jellyfish. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6201-6206.	3.3	19
14	An all-trans-retinal-binding opsin peropsin as a potential dark-active and light-inactivated G protein-coupled receptor. Scientific Reports, 2018, 8, 3535.	1.6	34
15	Absorption Characteristics of Vertebrate Non-Visual Opsin, Opn3. PLoS ONE, 2016, 11, e0161215.	1.1	70
16	Diversification of non-visual photopigment parapinopsin in spectral sensitivity for diverse pineal functions. BMC Biology, 2015, 13, 73.	1.7	38
17	Activation of Transducin by Bistable Pigment Parapinopsin in the Pineal Organ of Lower Vertebrates. PLoS ONE, 2015, 10, e0141280.	1.1	34
18	Retinal Attachment Instability Is Diversified among Mammalian Melanopsins. Journal of Biological Chemistry, 2015, 290, 27176-27187.	1.6	21

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19	Intramolecular Interactions That Induce Helical Rearrangement upon Rhodopsin Activation. Journal of Biological Chemistry, 2014, 289, 13792-13800.	1.6	11
20	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
21	Diversity of animal opsin-based pigments and their optogenetic potential. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 710-716.	0.5	118
22	Functional Properties of Opsins and their Contribution to Light-Sensing Physiology. Zoological Science, 2014, 31, 653-659.	0.3	81
23	Distribution of Mammalian-Like Melanopsin in Cyclostome Retinas Exhibiting a Different Extent of Visual Functions. PLoS ONE, 2014, 9, e108209.	1.1	19
24	Homologs of vertebrate Opn3 potentially serve as a light sensor in nonphotoreceptive tissue. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4998-5003.	3.3	147
25	Contribution of a visual pigment absorption spectrum to a visual function: depth perception in a jumping spider. Biophysics (Nagoya-shi, Japan), 2013, 9, 85-89.	0.4	1
26	Photochemical Nature of Parietopsin. Biochemistry, 2012, 51, 1933-1941.	1.2	19
27	Depth Perception from Image Defocus in a Jumping Spider. Science, 2012, 335, 469-471.	6.0	125
28	Evolution and diversity of opsins. Environmental Sciences Europe, 2012, 1, 104-111.	2.6	42
29	Expression of UV-Sensitive Parapinopsin in the Iguana Parietal Eyes and Its Implication in UV-Sensitivity in Vertebrate Pineal-Related Organs. PLoS ONE, 2012, 7, e39003.	1.1	47
30	Beta-Arrestin Functionally Regulates the Non-Bleaching Pigment Parapinopsin in Lamprey Pineal. PLoS ONE, 2011, 6, e16402.	1.1	20
31	3P275 Investigation on a relationship of spectral characteristics of the rhodopsins and depth perception mechanism in a jumping spider(Photobiology: Vision & Photoreception,The 48th Annual) Tj ETQq1 1 0.784314 rgBT /Ov	1.0	1
32	Identification and characterization of a protostome homologue of peropsin from a jumping spider. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2010, 196, 51-59.	0.7	57
33	Diversity and functional properties of bistable pigments. Photochemical and Photobiological Sciences, 2010, 9, 1435-1443.	1.6	71
34	The Magnitude of the Light-induced Conformational Change in Different Rhodopsins Correlates with Their Ability to Activate G Proteins. Journal of Biological Chemistry, 2009, 284, 20676-20683.	1.6	52
35	Expression and comparative characterization of Gqâ€coupled invertebrate visual pigments and melanopsin. Journal of Neurochemistry, 2008, 105, 883-890.	2.1	90
36	Jellyfish vision starts with cAMP signaling mediated by opsin-G _s cascade. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 15576-15580.	3.3	140

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37	1P-272 Photoreaction of parietopsin(The 46th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2008, 48, S64.	0.0	0
38	1P-275 Comparative study on active state structures of rhodopsins having functionally varied properties using site-directed fluorescence labeling(The 46th Annual Meeting of the Biophysical) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6	0.0	0
39	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.	0.0	0
40	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.	0.0	0
41	Immunohistochemical characterization of a parapinopsin-containing photoreceptor cell involved in the ultraviolet/green discrimination in the pineal organ of the river lamprey <i>Lethenteron japonicum</i>. Journal of Experimental Biology, 2007, 210, 3821-3829.	0.8	22
42	Structural Changes in the Schiff Base Region of Squid Rhodopsin upon Photoisomerization Studied by Low-Temperature FTIR Spectroscopyâ€. Biochemistry, 2006, 45, 2845-2851.	1.2	38
43	Parietal-Eye Phototransduction Components and Their Potential Evolutionary Implications. Science, 2006, 311, 1617-1621.	6.0	113
44	Cephalochordate Melanopsin: Evolutionary Linkage between Invertebrate Visual Cells and Vertebrate Photosensitive Retinal Ganglion Cells. Current Biology, 2005, 15, 1065-1069.	1.8	219
45	A rhodopsin exhibiting binding ability to agonist all-trans-retinal. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 6303-6308.	3.3	51
46	The opsins. Genome Biology, 2005, 6, 213.	13.9	506
47	Molecular Architecture of Rhodopsin and Its Diversification. Seibutsu Butsuri, 2005, 45, 302-307.	0.0	2
48	Bistable UV pigment in the lamprey pineal. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 6687-6691.	3.3	136
49	Counterion displacement in the molecular evolution of the rhodopsin family. Nature Structural and Molecular Biology, 2004, 11, 284-289.	3.6	138
50	Functional Interaction between Bovine Rhodopsin and G Protein Transducin. Journal of Biological Chemistry, 2002, 277, 40-46.	1.6	61
51	Amphioxus homologs of Go-coupled rhodopsin and peropsin having 11-cis - and all-trans -retinals as their chromophores. FEBS Letters, 2002, 531, 525-528.	1.3	105
52	Demonstration of a rhodopsin-retinochrome system in the stalk eye of a marine gastropod,onchidium, by immunohistochemistry. Journal of Comparative Neurology, 2001, 433, 380-389.	0.9	30
53	Distinct Roles of the Second and Third Cytoplasmic Loops of Bovine Rhodopsin in G Protein Activation. Journal of Biological Chemistry, 2000, 275, 34272-34279.	1.6	71
54	Probing for the Threshold Energy for Visual Transduction: Red-Shifted Visual Pigment Analogs from 3-Methoxy-3-Dehydroretinal and Related Compounds. Photochemistry and Photobiology, 1999, 70, 111-115.	1.3	15

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55	Chimeric Nature of Pinopsin between Rod and Cone Visual Pigmentsâ€. Biochemistry, 1999, 38, 14738-14745.	1.2	41
56	Identification of a new intermediate state that binds but not activates transducin in the bleaching process of bovine rhodopsin. FEBS Letters, 1998, 425, 126-130.	1.3	23
57	Selective activation of G-protein subtypes by vertebrate and invertebrate rhodopsins. FEBS Letters, 1998, 439, 110-114.	1.3	27
58	A Novel Go-mediated Phototransduction Cascade in Scallop Visual Cells. Journal of Biological Chemistry, 1997, 272, 22979-22982.	1.6	158
59	Photochemical and Biochemical Properties of Chicken Blue-Sensitive Cone Visual Pigment. Biochemistry, 1997, 36, 12773-12779.	1.2	71
60	Presence of Two Rhodopsin Intermediates Responsible for Transducin Activationâ€. Biochemistry, 1997, 36, 14173-14180.	1.2	55
61	Water and Peptide Backbone Structure in the Active Center of Bovine Rhodopsinâ€. Biochemistry, 1997, 36, 6164-6170.	1.2	74
62	Retinal-binding protein as a shuttle for retinal in the rhodopsin-retinochrome system of the squid visual cells. Vision Research, 1989, 29, 639-652.	0.7	86