

# Hiroyuki Matsumoto

## List of Publications by Year in descending order

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109  
papers

2,998  
citations

172457

29  
h-index

197818

49  
g-index

110  
all docs

110  
docs citations

110  
times ranked

2753  
citing authors

#	ARTICLE	IF	CITATIONS
1	Improving the Solubility and Pharmacological Efficacy of Curcumin by Heat Treatment. <i>Assay and Drug Development Technologies</i> , 2007, 5, 567-576.	1.2	266
2	Friedreich-like ataxia with retinitis pigmentosa caused by the His101Gln mutation of the $\beta$ -Tocopherol transfer protein gene. <i>Annals of Neurology</i> , 1997, 41, 826-832.	5.3	137
3	Existence of a $\hat{1}^2$ -ionone ring-binding site in the rhodopsin molecule. <i>Nature</i> , 1975, 258, 523-526.	27.8	116
4	Phosrestin I undergoes the earliest light-induced phosphorylation by a calcium/calmodulin-dependent protein kinase in drosophila photoreceptors. <i>Neuron</i> , 1994, 12, 997-1010.	8.1	111
5	Synthesis and properties of 12-fluororetinal and 12-fluororhodopsin. Model system for fluorine-19 NMR studies of visual pigments. <i>Journal of the American Chemical Society</i> , 1981, 103, 7195-7201.	13.7	75
6	Proteome profiling of vitreoretinal diseases by cluster analysis. <i>Proteomics - Clinical Applications</i> , 2008, 2, 1265-1280.	1.6	74
7	Accessibility of the iodopsin chromophore. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 1975, 404, 300-308.	2.4	68
8	Fluorescence-Labeled Peptide pIMarkers for Capillary Isoelectric Focusing. <i>Analytical Chemistry</i> , 2002, 74, 1046-1053.	6.5	64
9	Proteomics study of neuropathic and nonneuropathic dorsal root ganglia: altered protein regulation following segmental spinal nerve ligation injury. <i>Physiological Genomics</i> , 2007, 29, 215-230.	2.3	64
10	New geometric isomers of vitamin A and carotenoids. 6. Fluorinated rhodopsin analogs from 10-fluoro- and 14-fluororetinal. <i>Journal of the American Chemical Society</i> , 1978, 100, 5957-5960.	13.7	62
11	Calcium/Calmodulin-Dependent Kinase II Phosphorylates <i>Drosophila</i> Visual Arrestin. <i>Journal of Neurochemistry</i> , 1997, 68, 169-175.	3.9	60
12	Identification of 4-hydroxynonenal-modified retinal proteins induced by photooxidative stress prior to retinal degeneration. <i>Free Radical Biology and Medicine</i> , 2006, 41, 1847-1859.	2.9	60
13	Recognition of opsin to the longitudinal length of retinal isomers in the formation of rhodopsin. <i>Vision Research</i> , 1978, 18, 607-609.	1.4	57
14	Accuracy in the Determination of Isoelectric Points of Some Proteins and a Peptide by Capillary Isoelectric Focusing: A Utility of Synthetic Peptides as Isoelectric Point Markers. <i>Analytical Chemistry</i> , 2000, 72, 4747-4757.	6.5	57
15	Efficient extraction of proteins from formalin-fixed paraffin-embedded tissues requires higher concentration of tris(hydroxymethyl)aminomethane. <i>Clinical Proteomics</i> , 2014, 11, 4.	2.1	57
16	Synthetic oligopeptides as isoelectric point markers for capillary isoelectric focusing with ultraviolet absorption detection. <i>Electrophoresis</i> , 2000, 21, 603-610.	2.4	56
17	Characterization of mammalian synemin, an intermediate filament protein present in all four classes of muscle cells and some neuroglial cells: co-localization and interaction with type III intermediate filament proteins and keratins. <i>Cell and Tissue Research</i> , 2003, 313, 195-207.	2.9	54
18	Electrostatic interaction between retinylidene chromophore and opsin in rhodopsin studied by fluorinated rhodopsin analogs. <i>Biochemistry</i> , 1987, 26, 4422-4428.	2.5	46

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19	Phosrestins I and II: Arrestin homologs which undergo differential light-induced phosphorylation in the Drosophila photoreceptor in vivo. <i>Biochemical and Biophysical Research Communications</i> , 1991, 177, 1306-1312.	2.1	45
20	Autoantibodies against HSP70 family proteins were detected in the cerebrospinal fluid from patients with multiple sclerosis. <i>Journal of the Neurological Sciences</i> , 2006, 241, 39-43.	0.6	45
21	Effect of digitonin concentration on regeneration of cattle rhodopsin. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1978, 501, 257-268.	1.0	40
22	Photochemical studies of 7-cis-rhodopsin at low temperatures. Nature and properties of the bathointermediate. <i>Biochemistry</i> , 1980, 19, 1549-1553.	2.5	40
23	Prevalence of anti-heat shock protein antibodies in cerebrospinal fluids of patients with Guillain-Barré syndrome. <i>Journal of Neuroimmunology</i> , 2004, 156, 204-209.	2.3	39
24	The First Case of Polymyositis Associated with Interferon Therapy.. <i>Internal Medicine</i> , 1994, 33, 806-808.	0.7	38
25	Phosphorylation of the $\hat{1}^3$ Subunit of the Retinal Photoreceptor cGMP Phosphodiesterase by the cAMP-Dependent Protein Kinase and Its Effect on the $\hat{1}^3$ Subunit Interaction with Other Proteins. <i>Biochemistry</i> , 1998, 37, 6205-6213.	2.5	35
26	Doubly hindered 7,11-dicis isomers of retinal. Synthesis, properties, and interaction with cattle opsin. <i>Journal of the American Chemical Society</i> , 1979, 101, 5078-5079.	13.7	33
27	Determination of Protein Molecular Weights on SDS-PAGE. <i>Methods in Molecular Biology</i> , 2019, 1855, 101-105.	0.9	33
28	Circadian proteomics of the mouse retina. <i>Proteomics</i> , 2007, 7, 3500-3508.	2.2	32
29	Longitudinal restrictions of the binding site of opsin as measured with retinal isomers and analogs. <i>Journal of the American Chemical Society</i> , 1980, 102, 4259-4262.	13.7	31
30	Photosensitivity of 10-substituted visual pigment analogues: detection of a specific secondary opsin-retinal interaction. <i>Biochemistry</i> , 1986, 25, 7026-7030.	2.5	31
31	Nonradioactive Phosphopeptide Assay by Matrix-Assisted Laser Desorption Ionization Time-of-Flight Mass Spectrometry: Application to Calcium/Calmodulin-Dependent Protein Kinase II. <i>Analytical Biochemistry</i> , 1998, 260, 188-194.	2.4	29
32	Phosphopeptide Sequencing by In-Source Decay Spectrum in Delayed Extraction Matrix-Assisted Laser Desorption Ionization Time-of-Flight Mass Spectrometry. <i>Analytical Biochemistry</i> , 2000, 277, 177-186.	2.4	29
33	[33] Ocular proteomics: Cataloging photoreceptor proteins by two-dimensional gel electrophoresis and mass spectrometry. <i>Methods in Enzymology</i> , 2000, 316, 492-511.	1.0	29
34	Prolidase deficiency and the biochemical assays used in its diagnosis. <i>Analytical Biochemistry</i> , 2006, 349, 165-175.	2.4	29
35	Seven new hindered isomeric rhodopsins. <i>Tetrahedron</i> , 1984, 40, 473-482.	1.9	28
36	Residues within the Polycationic Region of cGMP Phosphodiesterase $\hat{1}^3$ Subunit Crucial for the Interaction with Transducin $\hat{1}^3$ Subunit. <i>Journal of Biological Chemistry</i> , 1997, 272, 15856-15864.	3.4	27

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37	Protein Identification on Two-Dimensional Gels Archived Nearly Two Decades Ago by In-Gel Digestion and Matrix-Assisted Laser Desorption Ionization Time-of-Flight Mass Spectrometry. <i>Analytical Biochemistry</i> , 1999, 270, 176-179.	2.4	27
38	Synthesis of d-labeled N-alkylmaleimides and application to quantitative peptide analysis by isotope differential mass spectrometry. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2001, 11, 2257-2261.	2.2	27
39	Retinophilin Is a Light-Regulated Phosphoprotein Required to Suppress Photoreceptor Dark Noise in <i>Drosophila</i> . <i>Journal of Neuroscience</i> , 2010, 30, 1238-1249.	3.6	27
40	Assay of trypsin activity by capillary isoelectric focusing with laser-induced fluorescence detection. <i>Electrophoresis</i> , 1998, 19, 2296-2300.	2.4	26
41	Initiating Ocular Proteomics for Cataloging Bovine Retinal Proteins: Microanalytical Techniques Permit the Identification of Proteins Derived from a Novel Photoreceptor Preparation. <i>Experimental Eye Research</i> , 1999, 69, 195-212.	2.6	26
42	Immunoassay of serum $\alpha_1$ -antitrypsin by affinity-probe capillary isoelectric focusing using a fluorescence-labeled recombinant antibody fragment. <i>Electrophoresis</i> , 2002, 23, 909-917.	2.4	26
43	Monitoring of sterilization in an oxygen plasma apparatus, employing a quartz crystal microbalance (QCM) method. <i>Vacuum</i> , 2013, 93, 84-89.	3.5	26
44	Effect of humidity on the production of ozone and other radicals by low-pressure mercury lamps. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2014, 274, 13-19.	3.9	26
45	Successful Treatment of Cerebral Aspergillosis with a High Oral Dose of Itraconazole after Excisional Surgery. <i>Internal Medicine</i> , 1999, 38, 829-832.	0.7	24
46	Proteomic trajectory mapping of biological transformation: Application to developmental mouse retina. <i>Proteomics</i> , 2006, 6, 3251-3261.	2.2	24
47	Medaka fish, <i>Oryzias latipes</i> , as a model for human obesity-related glomerulopathy. <i>Biochemical and Biophysical Research Communications</i> , 2013, 431, 712-717.	2.1	24
48	Epsin-mediated degradation of IP3R1 fuels atherosclerosis. <i>Nature Communications</i> , 2020, 11, 3984.	12.8	24
49	Antibodies against <i>Helicobacter pylori</i> were detected in the cerebrospinal fluid obtained from patients with guillain-barré syndrome. <i>Annals of Neurology</i> , 1998, 44, 686-688.	5.3	23
50	Proteomics Profiling of the Cone Photoreceptor Cell Line, 661W. <i>Advances in Experimental Medicine and Biology</i> , 2008, 613, 301-311.	1.6	23
51	Degree of modification of Ro60 by the lipid peroxidation by-product 4-hydroxy-2-nonenal may differentially induce Sjögren syndrome or systemic lupus erythematosus in BALB/c mice. <i>Free Radical Biology and Medicine</i> , 2011, 50, 1222-1233.	2.9	23
52	Highly sensitive multistage mass spectrometry enables small-scale analysis of protein glycosylation from two-dimensional polyacrylamide gels. <i>Electrophoresis</i> , 2006, 27, 1394-1406.	2.4	22
53	Active oxygen sensors used a quartz crystal microbalance (QCM) with sputter-coated and spin-coated poly(tetrafluoroethylene) thin films. <i>Sensors and Actuators B: Chemical</i> , 2012, 171-172, 769-776.	7.8	22
54	9,11-Di-cis-retinal and 9,11-di-cis-rhodopsin. <i>Bioorganic Chemistry</i> , 1980, 9, 406-410.	4.1	21

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55	Novel eye-specific calmodulin methylation characterized by protein mapping in <i>Drosophila melanogaster</i> . <i>Proteomics</i> , 2007, 7, 2651-2658.	2.2	21
56	Study of urinary mandelic acid concentration and peripheral nerve conduction among styrene workers. <i>American Journal of Industrial Medicine</i> , 1996, 30, 41-47.	2.1	20
57	Quantitative proteome analysis using D-labeled N-ethylmaleimide and <sup>13</sup> C-labeled iodoacetanilide by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. <i>Bioorganic and Medicinal Chemistry</i> , 2006, 14, 8197-8209.	3.0	20
58	Study of the shape of the binding site of bovine opsin using 10-substituted retinal isomers. <i>Biochemistry</i> , 1986, 25, 7021-7026.	2.5	19
59	7-cis-PORPHYROPSIN FROM 7-cis-3-DEHYDRORETINAL AND CATTLE OPSIN. <i>Photochemistry and Photobiology</i> , 1979, 29, 695-698.	2.5	18
60	Determination of prolidase activity using matrix-assisted laser desorption/ionization time-of-flight mass spectrometry. <i>Analytical Biochemistry</i> , 2004, 331, 224-229.	2.4	18
61	Mobility Moment Analysis of Molecular Interactions by Capillary Electrophoresis. <i>Analytical Chemistry</i> , 2005, 77, 564-572.	6.5	18
62	Toward a tripartite model of L2 reading strategy use, motivations, and learner beliefs. <i>System</i> , 2013, 41, 38-49.	3.4	18
63	The phosphorylation site and desmethionyl N-terminus of <i>Drosophila</i> phosphatase I in vivo determined by mass spectrometric analysis of proteins separated by two-dimensional gel electrophoresis. <i>European Journal of Mass Spectrometry</i> , 1997, 3, 367.	0.7	17
64	Transgenic Bcl-2 Expressed in Photoreceptor Cells Confers Both Death-sparing and Death-inducing Effects. <i>Experimental Eye Research</i> , 2001, 73, 711-721.	2.6	17
65	Cervical Dural Arteriovenous Malformation Presenting With Right-Sided Occipitalgia: Before and After Successful Treatment by Embolization. <i>Headache</i> , 1994, 34, 234-236.	3.9	16
66	Separation of Phosphopeptides from Their Nonphosphorylated Forms by Reversed-Phase POROS Perfusion Chromatography at Alkaline pH. <i>Analytical Biochemistry</i> , 1997, 251, 116-119.	2.4	15
67	Estimation of the Deamidation Rates of Major Deamidation Sites in a Fab Fragment of Mouse IgG1- $\mu$ by Capillary Isoelectric Focusing of Mutated Fab Fragments. <i>Analytical Chemistry</i> , 2013, 85, 1705-1710.	6.5	15
68	Extracellular vesicles from human bone marrow mesenchymal stem cells repair organ damage caused by cadmium poisoning in a medaka model. <i>Physiological Reports</i> , 2019, 7, e14172.	1.7	15
69	Synthesis of <sup>13</sup> C-Labeled iodoacetanilide and application to quantitative peptide analysis by isotope differential mass spectrometry. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2003, 13, 2913-2916.	2.2	14
70	Affinity-Tagged Phosphorylation Assay by Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry (ATPA-MALDI): Application to Calcium/Calmodulin-Dependent Protein Kinase. <i>Journal of Biochemistry</i> , 2005, 138, 791-796.	1.7	12
71	Investigation of Silver Oxidation Behavior under Active Oxygen Processing Utilizing the Quartz Crystal Microbalance Method. <i>Chemistry Letters</i> , 2009, 38, 1146-1147.	1.3	11
72	Investigation of a Sterilization System Using Active Oxygen Species Generated by Ultraviolet Irradiation. <i>Biocontrol Science</i> , 2015, 20, 11-18.	0.8	11

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73	Nutraceutical value of pure curcumin. <i>Pharmacognosy Magazine</i> , 2017, 13, 161.	0.6	11
74	Synthesis of D-labeled naphthylidoacetamide and application to quantitative peptide analysis by isotope differential mass spectrometry. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2006, 16, 6054-6057.	2.2	10
75	[93] Fluorine-labeled retinals and rhodopsins. <i>Methods in Enzymology</i> , 1982, 81, 694-698.	1.0	9
76	Phosrestin I, an arrestin homolog that undergoes light-induced phosphorylation in dipteran photoreceptors. <i>Insect Biochemistry and Molecular Biology</i> , 1994, 24, 607-617.	2.7	9
77	Isozyme Analysis of the High Serum Adenosine Deaminase Activity in Patients with Myasthenia Gravis.. <i>Internal Medicine</i> , 1995, 34, 81-84.	0.7	9
78	Discrimination of Two Functions of Photoreceptor cGMP Phosphodiesterase $\beta$ Subunit. <i>Biochemical and Biophysical Research Communications</i> , 1996, 222, 488-493.	2.1	9
79	Phrenic nerve conduction in infancy and early childhood. , 2000, 23, 915-918.		9
80	Differential expression of alternative splice variants of $\beta$ -arrestin-1 and -2 in rat central nervous system and peripheral tissues. <i>European Journal of Neuroscience</i> , 1998, 10, 2607-2616.	2.6	8
81	The Emerging Role of Mass Spectrometry in Molecular Biosciences: Studies of Protein Phosphorylation in Fly Eyes as an Example. <i>Novartis Foundation Symposium</i> , 1999, 224, 225-248.	1.1	8
82	Rhodopsin Regeneration is Accelerated <i>via</i> Noncovalent 11- <i>cis</i> Retinal-Op sin Complex <sup>A</sup> Role of Retinal Binding Pocket of Opsin <sup>sup</sup> . <i>Photochemistry and Photobiology</i> , 2008, 84, 985-989.	2.5	7
83	Development of an Active Oxygen Detector Using a Quartz Crystal Microbalance with a Carbon/Silver Layer. <i>Chemistry Letters</i> , 2009, 38, 216-217.	1.3	7
84	Mechanism for the regulation of mammalian cGMP phosphodiesterase6. 1: Identification of its inhibitory subunit complexes and their roles. <i>Molecular and Cellular Biochemistry</i> , 2010, 339, 215-233.	3.1	7
85	Protein Carbonylation Detected with Light and Heavy Isotope-Labeled 2,4-Dinitrophenylhydrazine by Matrix-Assisted Laser Desorption/Ionization Time-of-Flight Mass Spectrometry. <i>Journal of the Mass Spectrometry Society of Japan</i> , 2009, 57, 371-377.	0.1	7
86	Phosrestide-1, a peptide derived from the <i>Drosophila</i> photoreceptor protein phosrestin I, is a potent substrate for Ca <sup>2+</sup> /calmodulin-dependent protein kinase II from rat brain. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 1998, 119, 739-746.	1.6	6
87	Active Oxygen Monitor Using Quartz Crystal Microbalance Method with Polymer Detection Layers. <i>Journal of Photopolymer Science and Technology</i> = [Fotoporima Konwakai Shi], 2009, 22, 279-284.	0.3	5
88	Exploring the development of individual difference profiles in L2 reading. <i>System</i> , 2013, 41, 994-1005.	3.4	5
89	Mechanism for the regulation of mammalian cGMP phosphodiesterase6. 2: Isolation and characterization of the transducin-activated form. <i>Molecular and Cellular Biochemistry</i> , 2010, 339, 235-251.	3.1	4
90	Measurement and simulation of O <sub>2</sub> ( $\alpha$ 1 $\pi$ ) density under low-pressure mercury lamp irradiation. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2015, 305, 78-82.	3.9	4

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91	A sterilization system using ultraviolet photochemical reactions based on nitrous oxide and oxygen gases. <i>Journal of Microbiological Methods</i> , 2016, 122, 59-63.	1.6	4
92	Cutaneous histopathology of the tick bite region in severe fever with thrombocytopenia syndrome. <i>Journal of Dermatology</i> , 2019, 46, 409-412.	1.2	4
93	Two-Dimensional Gel Electrophoresis: Glass Tube-Based IEF Followed by SDS-PAGE. <i>Methods in Molecular Biology</i> , 2012, 869, 267-273.	0.9	3
94	Two-Dimensional Gel Electrophoresis by Glass Tube-Based IEF and SDS-PAGE. <i>Methods in Molecular Biology</i> , 2019, 1855, 107-113.	0.9	3
95	Proteomics as a Tool for Studying Complex Systems and the Abductive Inference of C. S. Peirce. <i>Journal of the Mass Spectrometry Society of Japan</i> , 2002, 50, 116-125.	0.1	2
96	Melatonin induces alterations in protein expression in the <i>Xenopus laevis</i> retina. <i>Journal of Pineal Research</i> , 2002, 32, 270-274.	7.4	2
97	Mechanized Syringe Homogenization of Human and Animal Tissues. <i>Assay and Drug Development Technologies</i> , 2004, 2, 308-312.	1.2	2
98	Two-Dimensional Gel-Based Protein Standardization Verified by Western Blot Analysis. <i>Methods in Molecular Biology</i> , 2015, 1312, 473-479.	0.9	2
99	Exploration of Cone Cyclic Nucleotide-Gated Channel-Interacting Proteins Using Affinity Purification and Mass Spectrometry. <i>Advances in Experimental Medicine and Biology</i> , 2014, 801, 57-65.	1.6	2
100	Visual pigment analogs from isomers of 5,6,7,8-tetrahydroretinal. The importance of the trimethylcyclohexyl ring. <i>Bioorganic Chemistry</i> , 1982, 11, 404-411.	4.1	1
101	Proteomics of <i>Drosophila</i> Compound Eyes: Early Studies, Now, and the Future—Light-Induced Protein Phosphorylation as an Example. <i>Journal of Neurogenetics</i> , 2012, 26, 118-122.	1.4	1
102	Protein Identification on Archived 2-D Gels. <i>Methods in Molecular Biology</i> , 2012, 869, 305-308.	0.9	1
103	The role of the non-covalent $\beta^2$ -ionone-ring binding site in rhodopsin: historical and physiological perspective. <i>Photochemical and Photobiological Sciences</i> , 2015, 14, 1932-1940.	2.9	1
104	Identification of Proteins on Archived 2D Gels. <i>Methods in Molecular Biology</i> , 2019, 1855, 287-289.	0.9	1
105	Proteomics Approach to Complex Signaling Systems. <i>Seibutsu Butsuri</i> , 2003, 43, 270-274.	0.1	1
106	Proteomics and Abductive Inference by C. S. Peirce. <i>Seibutsu Butsuri</i> , 2003, 43, 291-294.	0.1	1
107	MS Analysis of Protein Glycosylation. <i>Springer Protocols</i> , 2009, , 1387-1394.	0.3	0
108	Development of the Microchip Isoelectric Focusing System with Fluorescence Correlation Spectroscopic Measurement. <i>Bunseki Kagaku</i> , 2011, 60, 977-982.	0.2	0

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109	Proteomic Trajectory Mapping (ã,ãf³ãf'ã,~è³ªç™ªç³/4è»CEè·jåœ°ã³). Hikaku Seiri Seikagaku(Comparative Physiology and Biochemistry) 2008, 25, 139-146.	0.0	0