Leonid S Brown

List of Publications by Year
in descending order

136 papers	8,158 citations	41627 51 h-index	58552 86 g-index
143 all docs	143 docs citations	143 times ranked	4864 citing authors

#	Article	IF	Citations
1	Light-driven proton transfers and proton transport by microbial rhodopsins â€“ A biophysical perspective. Biochimica Et Biophysica Acta - Biomembranes, 2022, 1864, 183867.	1.4	19
2	Conserved hydrogen-bond motifs of membrane transporters and receptors. Biochimica Et Biophysica Acta - Biomembranes, 2022, 1864, 183896.	1.4	10
3	Kalium channelrhodopsins are natural light-gated potassium channels that mediate optogenetic inhibition. Nature Neuroscience, 2022, 25, 967-974.	7.1	56
4	Trans-gauche-trans disulphide conformers measured by means of FT-Raman may be predictors of apparent digestibility of crude protein in feather meal fed to rainbow trout (Oncorhynchus mykiss). Animal Feed Science and Technology, 2021, 274, 114829.	1.1	1
5	Self-Organized Amphiphiles Are Poor Hydroxyl Radical Scavengers in Fast Photochemical Oxidation of Proteins Experiments. Journal of the American Society for Mass Spectrometry, 2021, 32, 1155-1161.	1.2	6
6	Cation and Anion Channelrhodopsins: Sequence Motifs and Taxonomic Distribution. MBio, 2021, 12, e0165621.	1.8	21
7	Predicting the standardized ileal digestibility of crude protein in feather meal fed to broiler chickens using a pH-stat and a FT-Raman method. Animal Feed Science and Technology, 2020, 261, 114340.	1.1	6
8	The crystal structures of a chloride-pumping microbial rhodopsin and its proton-pumping mutant illuminate proton transfer determinants. Journal of Biological Chemistry, 2020, 295, 14793-14804.	1.6	19
9	RubyACRs, nonalgal anion channelrhodopsins with highly red-shifted absorption. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 22833-22840.	3.3	45
10	Improved Protocol for the Production of the Low-Expression Eukaryotic Membrane Protein Human Aquaporin 2 in Pichia pastoris for Solid-State NMR. Biomolecules, 2020, 10, 434.	1.8	5
11	Improved Growth Protocol for the Production of Low-Expression Eukaryotic Membrane Proteins for Solid-State NMR. Biophysical Journal, 2020, 118, 612a.	0.2	0
12	Conductance Mechanisms of Rapidly Desensitizing Cation Channelrhodopsins from Cryptophyte Algae. MBio, 2020, 11, .	1.8	20
13	Identifying lipids tightly bound to an integral membrane protein. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183345.	1.4	10
14	Mechanism of Inward Proton Transport in an Antarctic Microbial Rhodopsin. Journal of Physical Chemistry B, 2020, 124, 4851-4872.	1.2	29
15	Rhodopsin Oligomerization in Synthetic Lipid Bilayers and Native Cellular Membranes as Studied by DEER of a Spin-labeled Retinal Analog. Biophysical Journal, 2020, 118, 368a.	0.2	0
16	Structure of the Functionally Important Extracellular Loop C of Human Aquaporin 1 Obtained by Solid-State NMR under Nearly Physiological Conditions. Journal of Physical Chemistry B, 2019, 123, 7700-7710.	1.2	11
17	X-ray Crystallographic Structure and Oligomerization of Gloeobacter Rhodopsin. Scientific Reports, 2019, 9, 11283.	1.6	46
18	The Importance of Sequence Order Versus Composition in the Cryoprotective Function of an Intrinsically Disordered Protein. Biophysical Journal, 2019, 116, 201a.	0.2	0

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19	Bridge: A Graph-Based Algorithm to Analyze Dynamic H-Bond Networks in Membrane Proteins. Journal of Chemical Theory and Computation, 2019, 15, 6781-6798.	2.3	33
20	Solid-state NMR spectroscopy based atomistic view of a membrane protein unfolding pathway. Nature Communications, 2019, 10, 3867.	5.8	15
21	Disulphide bonds and crossâ€linked amino acids may affect amino acid utilization in feather meal fed to rainbow trout (<i>Oncorhynchus mykiss</i>). Aquaculture Research, 2019, 50, 2081-2095.	0.9	8
22	A biradical-tagged phospholipid as a polarizing agent for solid-state MAS Dynamic Nuclear Polarization NMR of membrane proteins. Solid State Nuclear Magnetic Resonance, 2019, 100, 92-101.	1.5	8
23	Biosynthetic production of fully carbon-13 labeled retinal in E. coli for structural and functional studies of rhodopsins. Journal of Biomolecular NMR, 2019, 73, 49-58.	1.6	2
24	Partial solid-state NMR 1H, 13C, 15N resonance assignments of a perdeuterated back-exchanged seven-transmembrane helical protein Anabaena Sensory Rhodopsin. Biomolecular NMR Assignments, 2018, 12, 237-242.	0.4	0
25	Molecular details of the unique mechanism of chloride transport by a cyanobacterial rhodopsin. Physical Chemistry Chemical Physics, 2018, 20, 3184-3199.	1.3	21
26	Oligomeric Structure of Anabaena Sensory Rhodopsin in a Lipid Bilayer Environment by Combining Solid-State NMR and Long-range DEER Constraints. Journal of Molecular Biology, 2017, 429, 1903-1920.	2.0	47
27	Biosynthetic Production of an isotopically Labelled Retinal in E. Coli. Biophysical Journal, 2017, 112, 357a.	0.2	0
28	A unique choanoflagellate enzyme rhodopsin exhibits light-dependent cyclic nucleotide phosphodiesterase activity. Journal of Biological Chemistry, 2017, 292, 7531-7541.	1.6	74
29	Recent advances in biophysical studies of rhodopsins â€“ Oligomerization, folding, and structure. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2017, 1865, 1512-1521.	1.1	27
30	Sample Preparation of Rhodopsins in the E. coli Membrane for In Situ Magic Angle Spinning Solid-State Nuclear Magnetic Resonance Studies. Springer Protocols, 2016, , 253-267.	0.1	0
31	Sparse 13C labelling for solid-state NMR studies of P. pastoris expressed eukaryotic seven-transmembrane proteins. Journal of Biomolecular NMR, 2016, 65, 7-13.	1.6	14
32	Structure and Dynamics of Extracellular Loops in Human Aquaporin-1 from Solid-State NMR and Molecular Dynamics. Journal of Physical Chemistry B, 2016, 120, 9887-9902.	1.2	24
33	A New Group of Eubacterial Light-Driven Proton Pumps Lacking the Carboxylic Proton Donor. Biophysical Journal, 2016, 110, 313a.	0.2	0
34	Determining Oligomeric Order of a Membrane Protein by Double Electron-Electron Resonance Spectroscopy. Biophysical Journal, 2015, 108, 93a.	0.2	0
35	Proton detection for signal enhancement in solid-state NMR experiments on mobile species in membrane proteins. Journal of Biomolecular NMR, 2015, 63, 375-388.	1.6	23
36	Membrane proteins in their native habitat as seen by solidâ€state NMR spectroscopy. Protein Science, 2015, 24, 1333-1346.	3.1	42

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37	Advanced solid-state NMR techniques for characterization of membrane protein structure and dynamics: Application to Anabaena Sensory Rhodopsin. Journal of Magnetic Resonance, 2015, 253, 119-128.	1.2	18
38	Cysteine-Specific Labeling of Proteins with a Nitroxide Biradical for Dynamic Nuclear Polarization NMR. Journal of Physical Chemistry B, 2015, 119, 10180-10190.	1.2	53
39	Isotope Labeling of Eukaryotic Membrane Proteins in Yeast for Solid-State NMR. Methods in Enzymology, 2015, 565, 193-212.	0.4	14
40	In Situ Structural Studies of Anabaena Sensory Rhodopsin in the E.Âcoli Membrane. Biophysical Journal, 2015, 108, 1683-1696.	0.2	54
41	A new group of eubacterial light-driven retinal-binding proton pumps with an unusual cytoplasmic proton donor. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 1518-1529.	0.5	35
42	Directed Assembly of Proteopolymer Membrane Arrays with Light Driven Transport Performance. Biophysical Journal, 2014, 106, 183a.	0.2	1
43	High-resolution paramagnetically enhanced solid-state NMR spectroscopy of membrane proteins at fast magic angle spinning. Journal of Biomolecular NMR, 2014, 58, 37-47.	1.6	25
44	Microbial and Animal Rhodopsins: Structures, Functions, and Molecular Mechanisms. Chemical Reviews, 2014, 114, 126-163.	23.0	897
45	The photocycle and ultrafast vibrational dynamics of bacteriorhodopsin in lipid nanodiscs. Physical Chemistry Chemical Physics, 2014, 16, 21310-21320.	1.3	37
46	Conformational Dynamics of a Seven Transmembrane Helical Protein Anabaena Sensory Rhodopsin Probed by Solid-State NMR. Journal of the American Chemical Society, 2014, 136, 2833-2842.	6.6	78
47	â€œFrozenâ€• Block Copolymer Nanomembranes with Light-Driven Proton Pumping Performance. ACS Nano, 2014, 8, 537-545.	7.3	40
48	Exploring Structure and Dynamics of Human Aquaporin-1 by Solid-State NMR. Biophysical Journal, 2014, 106, 460a.	0.2	0
49	Eubacterial rhodopsins â€" Unique photosensors and diverse ion pumps. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 553-561.	0.5	67
50	Proton-Pumping Microbial Rhodopsins â€" Ubiquitous Structurally Simple Helpers of Respiration and Photosynthesis. Advances in Photosynthesis and Respiration, 2014, , 1-20.	1.0	2
51	Cyanobacterial Light-Driven Proton Pump, Gloeobacter Rhodopsin: Complementarity between Rhodopsin-Based Energy Production and Photosynthesis. PLoS ONE, 2014, 9, e110643.	1.1	44
52	Solid-state NMR spectroscopy structure determination of a lipid-embedded heptahelical membrane protein. Nature Methods, 2013, 10, 1007-1012.	9.0	196
53	Yeast-expressed human membrane protein aquaporin-1 yields excellent resolution of solid-state MAS NMR spectra. Journal of Biomolecular NMR, 2013, 55, 147-155.	1.6	31
54	A Thin Line between Channels and Pumps. Biophysical Journal, 2013, 104, 739-740.	0.2	3

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55	Solid-state NMR 13C and 15N resonance assignments of a seven-transmembrane helical protein Anabaena Sensory Rhodopsin. Biomolecular NMR Assignments, 2013, 7, 253-256.	0.4	22
56	Pulsed hydrogen/deuterium exchange mass spectrometry for timeâ€resolved membrane protein folding studies. Journal of Mass Spectrometry, 2012, 47, 1620-1626.	0.7	31
57	Paramagnetic Relaxation Enhancement Reveals Oligomerization Interface of a Membrane Protein. Journal of the American Chemical Society, 2012, 134, 16995-16998.	6.6	74
58	Comparative FTIR Study of a New Fungal Rhodopsin. Journal of Physical Chemistry B, 2012, 116, 11881-11889.	1.2	10
59	Kinetic Folding Mechanism of an Integral Membrane Protein Examined by Pulsed Oxidative Labeling and Mass Spectrometry. Journal of Molecular Biology, 2011, 410, 146-158.	2.0	34
60	A Eukaryotic-Like Interaction of Soluble Cyanobacterial Sensory Rhodopsin Transducer with DNA. Journal of Molecular Biology, 2011, 411, 449-462.	2.0	23
61	Coherent control of the isomerization of retinal in bacteriorhodopsin in the high intensity regime. Journal of Chemical Physics, 2011, 134, 085105.	1.2	46
62	Site-Specific Solid-State NMR Detection of Hydrogen-Deuterium Exchange Reveals Conformational Changes in a 7-Helical Transmembrane Protein. Biophysical Journal, 2011, 101, L23-L25.	0.2	33
63	Hydrogen Exchange Mass Spectrometry of Bacteriorhodopsin Reveals Light-Induced Changes in the Structural Dynamics of a Biomolecular Machine. Journal of the American Chemical Society, 2011, 133, 20237-20244.	6.6	19
64	Proton-Detected Solid-State NMR Reveals Intramembrane Polar Networks in a Seven-Helical Transmembrane Protein Proteorhodopsin. Journal of the American Chemical Society, 2011, 133, 17434-17443.	6.6	100
65	Photochemical characterization of a novel fungal rhodopsin from Phaeosphaeria nodorum. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 1457-1466.	0.5	24
66	Uniform isotope labeling of a eukaryotic seven-transmembrane helical protein in yeast enables high-resolution solid-state NMR studies in the lipid environment. Journal of Biomolecular NMR, 2011, 49, 151-161.	1.6	44
67	Hydrogen/deuterium exchange mass spectrometry and optical spectroscopy as complementary tools for studying the structure and dynamics of a membrane protein. International Journal of Mass Spectrometry, 2011, 302, 3-11.	0.7	21
68	Conformation of a Sevenâ€Helical Transmembrane Photosensor in the Lipid Environment. Angewandte Chemie - International Edition, 2011, 50, 1302-1305.	7.2	108
69	2P116 Three-dimensional Solid-state NMR study of Anabaena Sensory Rhodopsin in the lipid environment : Chemical Shift Assignments(The 48th Annual Meeting of the Biophysical Society of) Tj ETQq1 1 0.784314 rgBT /Overlock	0.0	0
70	1P258 FTIR study of a new fungal rhodopsin(Photobiology:Vision & Photoreception,The 48th Annual) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.0	0
71	Site-directed mutagenesis combined with oxidative methionine labeling for probing structural transitions of a membrane protein by mass spectrometry. Journal of the American Society for Mass Spectrometry, 2010, 21, 1947-1956.	1.2	18
72	Can Retinal Isomerization in Bacteriorhodopsin Be Coherently Controlled in the Strong Field Limit?. , 2010, , .		0

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73	Conserving Optical Coherence through the Conical Intersection during Retinal Isomerization in Bacteriorhodopsin. , 2010, , .		0
74	Solid-state NMR study of proteorhodopsin in the lipid environment: Secondary structure and dynamics. Biochimica Et Biophysica Acta - Biomembranes, 2009, 1788, 2563-2574.	1.4	90
75	Three-Dimensional Solid-State NMR Study of a Seven-Helical Integral Membrane Proton Pumpâ€"Structural Insights. Journal of Molecular Biology, 2009, 386, 1078-1093.	2.0	147
76	Mapping the Structure of an Integral Membrane Protein under Semi-Denaturing Conditions by Laser-Induced Oxidative Labeling and Mass Spectrometry. Journal of Molecular Biology, 2009, 394, 968-981.	2.0	46
77	The Photocycle and Proton Translocation Pathway in a Cyanobacterial Ion-Pumping Rhodopsin. Biophysical Journal, 2009, 96, 1471-1481.	0.2	100
78	Induced Secondary Structure and Polymorphism in an Intrinsically Disordered Structural Linker of the CNS: Solid-State NMR and FTIR Spectroscopy of Myelin Basic Protein Bound to Actin. Biophysical Journal, 2009, 96, 180-191.	0.2	29
79	Structural Characterization of an Integral Membrane Protein in Its Natural Lipid Environment by Oxidative Methionine Labeling and Mass Spectrometry. Analytical Chemistry, 2009, 81, 28-35.	3.2	67
80	Resolution enhancement by homonuclear J-decoupling: application to three-dimensional solid-state magic angle spinning NMR spectroscopy. Journal of Biomolecular NMR, 2008, 41, 9-15.	1.6	18
81	Screening and characterization of proteorhodopsin color-tuning mutations in Escherichia coli with endogenous retinal synthesis. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, 504-513.	0.5	67
82	Structural basis of diversification of fungal retinal proteins probed by site-directed mutagenesis ofLeptosphaeriarhodopsin. FEBS Letters, 2007, 581, 2557-2561.	1.3	17
83	On the mechanism of weak-field coherent control of retinal isomerization in bacteriorhodopsin. Chemical Physics, 2007, 341, 296-309.	0.9	34
84	Experimental Coherent Control of Retinal Isomerization in Bacteriorhodopsin. Springer Series in Chemical Physics, 2007, , 462-464.	0.2	0
85	Bacteriorhodopsin-like proteins of eubacteria and fungi: the extent of conservation of the haloarchaeal proton-pumping mechanism. Photochemical and Photobiological Sciences, 2006, 5, 538.	1.6	91
86	Conformational Coupling between the Cytoplasmic Carboxylic Acid and the Retinal in a Fungal Light-Driven Proton Pumpâ€. Biochemistry, 2006, 45, 15349-15358.	1.2	19
87	A Priori Resolution of the Intermediate Spectra in the Bacteriorhodopsin Photocycle:â€‰ The Time Evolution of the L Spectrum Revealed. Journal of Physical Chemistry A, 2006, 110, 2318-2321.	1.1	22
88	Cytoplasmic Shuttling of Protons in Anabaena Sensory Rhodopsin: Implications for Signaling Mechanism. Journal of Molecular Biology, 2006, 358, 686-700.	2.0	55
89	2P308 Asp to Glu substitution in the cytoplasmic channel dramatically affects the photocycle of bacteriorhodopsin-like protein from a Eucaryote(41. Proton and ion pumping,Poster) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 9	0.0	1
90	Coherent Control of Retinal Isomerization in Bacteriorhodopsin. Science, 2006, 313, 1257-1261.	6.0	343

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91	Experimental Coherent Control of Retinal Isomerization in Bacteriorhodopsin. , 2006, , .		0
92	Leptosphaeria rhodopsin: Bacteriorhodopsin-like proton pump from a eukaryote. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 6879-6883.	3.3	213
93	Proton binding within a membrane protein by a protonated water cluster. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 3633-3638.	3.3	194
94	Strongly Hydrogen-Bonded Water Molecule Present near the Retinal Chromophore ofLeptosphaeriaRhodopsin, the Bacteriorhodopsin-like Proton Pump from a Eukaryoteâ€. Biochemistry, 2005, 44, 15159-15166.	1.2	41
95	Fungal rhodopsins and opsin-related proteins: eukaryotic homologues of bacteriorhodopsin with unknown functions. Photochemical and Photobiological Sciences, 2004, 3, 555.	1.6	86
96	FTIR Spectroscopy of the K Photointermediate ofNeurosporaRhodopsin:Â Structural Changes of the Retinal, Protein, and Water Molecules after Photoisomerizationâ€. Biochemistry, 2004, 43, 9636-9646.	1.2	61
97	Crystallographic Structures of the M and N Intermediates of Bacteriorhodopsin: Assembly of a Hydrogen-bonded Chain of Water Molecules Between Asp-96 and the Retinal Schiff Base. Journal of Molecular Biology, 2003, 330, 553-570.	2.0	157
98	Characterization of the Photochemical Reaction Cycle of Proteorhodopsin. Biophysical Journal, 2003, 84, 1202-1207.	0.2	101
99	Conformational change of the E-F interhelical loop in the M photointermediate of bacteriorhodopsin. Journal of Molecular Biology, 2002, 317, 471-478.	2.0	32
100	Proton Transfers in the Photochemical Reaction Cycle of Proteorhodopsin. Biochemistry, 2002, 41, 5348-5358.	1.2	203
101	Coupling of the Reisomerization of the Retinal, Proton Uptake, and Reprotonation of Asp-96 in the N Photointermediate of Bacteriorhodopsinâ€. Biochemistry, 2001, 40, 11308-11317.	1.2	55
102	Proton transport mechanism of bacteriorhodopsin as revealed by site-specific mutagenesis and protein sequence variability. Biochemistry (Moscow), 2001, 66, 1249-1255.	0.7	21
103	Photochemical Reaction Cycle and Proton Transfers inNeurospora Rhodopsin. Journal of Biological Chemistry, 2001, 276, 32495-32505.	1.6	60
104	Light-induced Rotation of a Transmembrane Î±-Helix in Bacteriorhodopsin. Journal of Molecular Biology, 2000, 304, 715-721.	2.0	67
105	Reconciling crystallography and mutagenesis: a synthetic approach to the creation of a comprehensive model for proton pumping by bacteriorhodopsin. Biochimica Et Biophysica Acta - Bioenergetics, 2000, 1460, 49-59.	0.5	17
106	Origins of Deuterium Kinetic Isotope Effects on the Proton Transfers of the Bacteriorhodopsin Photocycleâ€. Biochemistry, 2000, 39, 938-945.	1.2	30
107	Binding of Calcium Ions to Bacteriorhodopsin. Biophysical Journal, 1999, 76, 3219-3226.	0.2	38
108	Fourier Transform Infrared Spectra of a Late Intermediate of the Bacteriorhodopsin Photocycle Suggest Transient Protonation of Asp-212â€. Biochemistry, 1999, 38, 10070-10078.	1.2	67

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109	Functional Roles of Aspartic Acid Residues at the Cytoplasmic Surface of Bacteriorhodopsin. Biochemistry, 1999, 38, 6855-6861.	1.2	32
110	Protein conformational changes in the bacteriorhodopsin photocycle 1 1Edited by B. Honig. Journal of Molecular Biology, 1999, 287, 145-161.	2.0	244
111	Local-Access Model for Proton Transfer in Bacteriorhodopsin. Biochemistry, 1998, 37, 3982-3993.	1.2	78
112	Existence of a Proton Transfer Chain in Bacteriorhodopsin:Â Participation of Glu-194 in the Release of Protons to the Extracellular Surfaceâ€. Biochemistry, 1998, 37, 2496-2506.	1.2	173
113	Connectivity of the Retinal Schiff Base to Asp85 and Asp96 during the Bacteriorhodopsin Photocycle: The Local-Access Model. Biophysical Journal, 1998, 75, 1455-1465.	0.2	67
114	Partitioning of Free Energy Gain between the Photoisomerized Retinal and the Protein in Bacteriorhodopsin. Biochemistry, 1998, 37, 9889-9893.	1.2	45
115	Time-Resolved Fourier Transform Infrared Study of Structural Changes in the Last Steps of the Photocycles of Glu-204 and Leu-93 Mutants of Bacteriorhodopsin. Biochemistry, 1997, 36, 5134-5141.	1.2	56
116	Transient channel-opening in bacteriorhodopsin: an EPR study 1 1Edited by D. Ress. Journal of Molecular Biology, 1997, 273, 951-957.	2.0	119
117	A local electrostatic change is the cause of the large-scale protein conformation shift in bacteriorhodopsin. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 5040-5044.	3.3	71
118	Steric Interaction between the 9-Methyl Group of the Retinal and Tryptophan 182 Controls 13-cistoall-transReisomerization and Proton Uptake in the Bacteriorhodopsin Photocycleâ€. Biochemistry, 1996, 35, 10807-10814.	1.2	55
119	Hydration of the Counterion of the Schiff Base in the Chloride-Transporting Mutant of Bacteriorhodopsin:Â FTIR and FT-Raman Studies of the Effects of Anion Binding When Asp85 Is Replaced with a Neutral Residueâ€,â€¡. Biochemistry, 1996, 35, 14244-14250.	1.2	25
120	Proton Transport by Halorhodopsinâ€. Biochemistry, 1996, 35, 6604-6611.	1.2	93
121	Interaction of Proton and Chloride Transfer Pathways in Recombinant Bacteriorhodopsin with Chloride Transport Activity:Â Implications for the Chloride Translocation Mechanismâ€. Biochemistry, 1996, 35, 16048-16054.	1.2	41
122	Determination of the transiently lowered pKa of the retinal Schiff base during the photocycle of bacteriorhodopsin.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 1731-1734.	3.3	57
123	A Linkage of the pKa's of asp-85 and glu-204 Forms Part of the Reprotonation Switch of Bacteriorhodopsinâ€. Biochemistry, 1996, 35, 4054-4062.	1.2	173
124	Glutamic Acid 204 is the Terminal Proton Release Group at the Extracellular Surface of Bacteriorhodopsin. Journal of Biological Chemistry, 1995, 270, 27122-27126.	1.6	227
125	Conversion of bacteriorhodopsin into a chloride ion pump. Science, 1995, 269, 73-75.	6.0	240
126	Light-Driven Chloride Ion Transport by Halorhodopsin from Natronobacterium pharaonis. I. The Photochemical Cycle. Biochemistry, 1995, 34, 14490-14499.	1.2	110

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127	The Complex Extracellular Domain Regulates the Deprotonation and Reprotonation of the Retinal Schiff Base during the Bacteriorhodopsin Photocycle. Biochemistry, 1995, 34, 12903-12911.	1.2	48
128	Interaction of tryptophan-182 with the retinal 9-methyl group in the L intermediate of bacteriorhodopsin. Biochemistry, 1995, 34, 577-582.	1.2	83
129	Functional significance of a protein conformation change at the cytoplasmic end of helix F during the bacteriorhodopsin photocycle. Biophysical Journal, 1995, 69, 2103-2111.	0.2	67
130	Relationship of proton release at the extracellular surface to deprotonation of the schiff base in the bacteriorhodopsin photocycle. Biophysical Journal, 1995, 68, 1518-1530.	0.2	80
131	The Proton Transfers in the Cytoplasmic Domain of Bacteriorhodopsin are Facilitated by a Cluster of Interacting Residues. Journal of Molecular Biology, 1994, 239, 401-414.	2.0	76
132	Energy coupling in an ion pump. Journal of Molecular Biology, 1994, 243, 621-638.	2.0	142
133	The Retinal Schiff Base-Counterion Complex of Bacteriorhodopsin: Changed Geometry during the Photocycle Is a Cause of Proton Transfer to Aspartate 85. Biochemistry, 1994, 33, 12001-12011.	1.2	72
134	Relationship of proton uptake on the cytoplasmic surface and reisomerization of the retinal in the bacteriorhodopsin photocycle: An attempt to understand the complex kinetics of the pH changes and the N and O intermediates. Biochemistry, 1993, 32, 10239-10248.	1.2	84
135	Estimated acid dissociation constants of the Schiff base, Asp-85, and Arg-82 during the bacteriorhodopsin photocycle. Biophysical Journal, 1993, 65, 124-130.	0.2	101
136	Photoreaction of the N intermediate of bacteriorhodopsin, and its relationship to the decay kinetics of the M intermediate. Biochemistry, 1993, 32, 7679-7685.	1.2	34