Richard Needleman

List of Publications by Year
in descending order

70 papers	4,578 citations	87401 40 h-index	107981 68 g-index
70 all docs	70 docs citations	70 times ranked	1527 citing authors

#	Article	IF	Citations
1	Amino Acids as biomarkers in the SOD1G93A mouse model of ALS. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2014, 1842, 79-87.	1.8	20
2	Effect of Sex on Lifespan, Disease Progression, and the Response to Methionine Sulfoximine in the SOD1 G93A Mouse Model for ALS. Gender Medicine, 2012, 9, 524-535.	1.4	36
3	A glutamine synthetase inhibitor increases survival and decreases cytokine response in a mouse model of acute liver failure. Liver International, 2011, 31, 1209-1221.	1.9	20
4	Methionine sulfoximine, an inhibitor of glutamine synthetase, lowers brain glutamine and glutamate in a mouse model of ALS. Journal of the Neurological Sciences, 2010, 290, 41-47.	0.3	55
5	Glutamate as a target in Tourette syndrome and other neuropsychiatric disorders. Journal of the Neurological Sciences, 2010, 293, 126-127.	0.3	2
6	Activity of the yeast Tat2p tryptophan permease is sensitive to the anti-tumor agent 4-phenylbutyrate. Current Genetics, 2004, 46, 256-268.	0.8	11
7	Water-Mediated Hydrogen-Bonded Network on the Cytoplasmic Side of the Schiff Base of the L Photointermediate of Bacteriorhodopsinâ€. Biochemistry, 2003, 42, 14122-14129.	1.2	15
8	Bacteriorhodopsin as a chemical and biological sensor. , 2003, , .		2
9	Changes in Hydrogen Bonding and Environment of Tryptophan Residues on Helix F of Bacteriorhodopsin during the Photocycle:Â A Time-Resolved Ultraviolet Resonance Raman Study. Biochemistry, 2002, 41, 6495-6503.	1.2	31
10	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
11	Immunosuppressant-like effects of phenylbutyrate on growth inhibition of Saccharomyces cerevisiae. Current Genetics, 2002, 41, 142-149.	0.8	10
12	Crystal structure of the D85S mutant of bacteriorhodopsin: model of an O-like photocycle intermediate. Journal of Molecular Biology, 2001, 313, 615-628.	2.0	94
13	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
14	Cytoplasmic surface structure of bacteriorhodopsin consisting of interhelical loops and C-terminal Î± helix, modified by a variety of environmental factors as studied by13C-NMR. FEBS Journal, 2001, 268, 2218-2228.	0.2	19
15	Coupling photoisomerization of retinal to directional transport in bacteriorhodopsin11Edited by D. C. Rees. Journal of Molecular Biology, 2000, 300, 1237-1255.	2.0	213
16	Light-induced Rotation of a Transmembrane Î±-Helix in Bacteriorhodopsin. Journal of Molecular Biology, 2000, 304, 715-721.	2.0	67
17	Origins of Deuterium Kinetic Isotope Effects on the Proton Transfers of the Bacteriorhodopsin Photocycleâ€. Biochemistry, 2000, 39, 938-945.	1.2	30
18	Long-Distance Effects of Site-Directed Mutations on Backbone Conformation in Bacteriorhodopsin from Solid State NMR of [1-13C]Val-Labeled Proteins. Biophysical Journal, 1999, 77, 431-442.	0.2	34

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19	Conformational Changes of Bacteriorhodopsin along the Proton-Conduction Chain as Studied with 13C NMR of [3-13C]Ala-Labeled Protein: Arg82 May Function as an Information Mediator. Biophysical Journal, 1999, 77, 1577-1584.	0.2	31
20	Conformational Change of Helix G in the Bacteriorhodopsin Photocycle: Investigation with Heavy Atom Labeling and X-Ray Diffraction. Biophysical Journal, 1999, 76, 1018-1023.	0.2	40
21	Location of a Cation-Binding Site in the Loop between Helices F and G of Bacteriorhodopsin as Studied by 13C NMR. Biophysical Journal, 1999, 76, 1523-1531.	0.2	72
22	Binding of Calcium Ions to Bacteriorhodopsin. Biophysical Journal, 1999, 76, 3219-3226.	0.2	38
23	Structural Change of Threonine 89 upon Photoisomerization in Bacteriorhodopsin As Revealed by Polarized FTIR Spectroscopyâ€. Biochemistry, 1999, 38, 9676-9683.	1.2	65
24	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
25	Functional Roles of Aspartic Acid Residues at the Cytoplasmic Surface of Bacteriorhodopsin. Biochemistry, 1999, 38, 6855-6861.	1.2	32
26	Lifetime of M Intermediate in the D96N Mutant of Bacteriorhodopsin Determined by a Photoelectrochemical Method. Chemistry Letters, 1999, 28, 769-770.	0.7	6
27	Photoelectrochemical Verification of Protonâ€Releasing Groups in Bacteriorhodopsin. Photochemistry and Photobiology, 1998, 68, 400-406.	1.3	24
28	Evidence of local conformational fluctuations and changes in bacteriorhodopsin, dependent on lipids, detergents and trimeric structure, as studied by 13C NMR. Biochimica Et Biophysica Acta - Biomembranes, 1998, 1375, 84-92.	1.4	26
29	Interaction of the Protonated Schiff Base with the Peptide Backbone of Valine 49 and the Intervening Water Molecule in the N Photointermediate of Bacteriorhodopsinâ€. Biochemistry, 1998, 37, 1559-1564.	1.2	41
30	Local-Access Model for Proton Transfer in Bacteriorhodopsin. Biochemistry, 1998, 37, 3982-3993.	1.2	78
31	Cysteine Sâ^'H as a Hydrogen-Bonding Probe in Proteins. Journal of the American Chemical Society, 1998, 120, 5828-5829.	6.6	53
32	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
33	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
34	Partitioning of Free Energy Gain between the Photoisomerized Retinal and the Protein in Bacteriorhodopsin. Biochemistry, 1998, 37, 9889-9893.	1.2	45
35	Genomic Footprinting of Mig1p in the MAL62 Promoter. Journal of Biological Chemistry, 1997, 272, 4613-4622.	1.6	22
36	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

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37	Trp86 â†' Phe Replacement in Bacteriorhodopsin Affects a Water Molecule near Asp85 and Light Adaptationâ€. Biochemistry, 1997, 36, 5493-5498.	1.2	32
38	Ultraviolet Resonance Raman Spectra of Trp-182 and Trp-189 in Bacteriorhodopsin:Â Novel Information on the Structure of Trp-182 and Its Steric Interaction with Retinal. Biochemistry, 1997, 36, 11583-11590.	1.2	35
39	Transient channel-opening in bacteriorhodopsin: an EPR study 1 1Edited by D. Ress. Journal of Molecular Biology, 1997, 273, 951-957.	2.0	119
40	X-Ray Diffraction Studies of Bacteriorhodopsin. Determination of the Positions of Mercury Label at Several Engineered Cysteine Residues. Photochemistry and Photobiology, 1997, 66, 768-773.	1.3	9
41	Conformation and Dynamics of [3-13C]Ala-Labeled Bacteriorhodopsin and Bacterioopsin, Induced by Interaction with Retinal and Its Analogs, As Studied by13C Nuclear Magnetic Resonanceâ€. Biochemistry, 1996, 35, 7520-7527.	1.2	46
42	Effects of Arginine-82 on the Interactions of Internal Water Molecules in Bacteriorhodopsinâ€. Biochemistry, 1996, 35, 6308-6312.	1.2	37
43	Hydrogen Bonds of Water and CO Groups Coordinate Long-Range Structural Changes in the L Photointermediate of Bacteriorhodopsinâ€. Biochemistry, 1996, 35, 4063-4068.	1.2	76
44	Relationship of Retinal Configuration and Internal Proton Transfer at the End of the Bacteriorhodopsin Photocycleâ€. Biochemistry, 1996, 35, 15461-15466.	1.2	58
45	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
46	Proton Transport by Halorhodopsinâ€. Biochemistry, 1996, 35, 6604-6611.	1.2	93
47	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
48	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
49	Removal of a Mig1p Binding Site Converts a <i>MAL63</i> Constitutive Mutant Derived by Interchromosomal Gene Conversion to Glucose Insensitivity. Genetics, 1996, 142, 51-63.	1.2	20
50	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
51	Light-Driven Chloride Ion Transport by Halorhodopsin from Natronobacterium pharaonis. I. The Photochemical Cycle. Biochemistry, 1995, 34, 14490-14499.	1.2	110
52	Water-Mediated Proton Transfer in Proteins: An FTIR Study of Bacteriorhodopsin. Journal of the American Chemical Society, 1995, 117, 2118-2119.	6.6	90
53	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
54	Interaction of tryptophan-182 with the retinal 9-methyl group in the L intermediate of bacteriorhodopsin. Biochemistry, 1995, 34, 577-582.	1.2	83

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55	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
56	Energy coupling in an ion pump. Journal of Molecular Biology, 1994, 243, 621-638.	2.0	142
57	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
58	Complete Identification of C:O Stretching Vibrational Bands of Protonated Aspartic Acid Residues in the Difference Infrared Spectra of M and N Intermediates versus Bacteriorhodopsin. Biochemistry, 1994, 33, 3178-3184.	1.2	94
59	Interaction of Aspartate-85 with a Water Molecule and the Protonated Schiff Base in the L Intermediate of Bacteriorhodopsin: A Fourier-Transform Infrared Spectroscopic Study. Biochemistry, 1994, 33, 1713-1717.	1.2	112
60	Trimeric mutant bacteriorhodopsin, D85N, shows a monophasic CD spectrum. FEBS Letters, 1993, 333, 111-113.	1.3	8
61	Proton transfer from Asp-96 to the bacteriorhodopsin Schiff base is caused by a decrease of the pKa of Asp-96 which follows a protein backbone conformational change. Biochemistry, 1993, 32, 1981-1990.	1.2	103
62	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
63	Pathway of proton uptake in the bacteriorhodopsin photocycle. Biochemistry, 1993, 32, 7669-7678.	1.2	81
64	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
65	Structures of aspartic acid-96 in the L and N intermediates of bacteriorhodopsin: analysis by Fourier transform infrared spectroscopy. Biochemistry, 1992, 31, 4684-4690.	1.2	104
66	Pathways of proton release in the bacteriorhodopsin photocycle. Biochemistry, 1992, 31, 8535-8543.	1.2	226
67	THE TWO CONSECUTIVE M SUBSTATES IN THE PHOTOCYCLE OF BACTERIORHODOPSIN ARE AFFECTED SPECIFICALLY BY THE D85N AND D96N RESIDUE REPLACEMENTS. Photochemistry and Photobiology, 1992, 56, 1049-1055.	1.3	54
68	Water is required for proton transfer from aspartate-96 to the bacteriorhodopsin Schiff base. Biochemistry, 1991, 30, 10972-10979.	1.2	221
69	An efficient system for the synthesis of bacteriorhodopsin in Halobacterium halobium. Gene, 1990, 90, 169-172.	1.0	140
70	Selection of yeast mutants constitutive for maltase synthesis. Molecular Genetics and Genomics, 1974, 133, 135-140.	2.4	23