Kenneth J Rothschild

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139 6,830 47 78 g-index

144 7,159 5.3 5.27 ext. papers ext. citations avg, IF L-index

| # | Paper | IF | Citations |
|-----|---|------|-----------|
| 139 | Vibrational spectroscopy of bacteriorhodopsin mutants: light-driven proton transport involves protonation changes of aspartic acid residues 85, 96, and 212. <i>Biochemistry</i> , 1988 , 27, 8516-20 | 3.2 | 499 |
| 138 | FTIR difference spectroscopy of bacteriorhodopsin: toward a molecular model. <i>Journal of Bioenergetics and Biomembranes</i> , 1992 , 24, 147-67 | 3.7 | 278 |
| 137 | Fourier transform infrared techniques for probing membrane protein structure. <i>Annual Review of Biophysics and Biophysical Chemistry</i> , 1988 , 17, 541-70 | | 235 |
| 136 | Polarized infrared spectroscopy of oriented purple membrane. <i>Biophysical Journal</i> , 1979 , 25, 473-87 | 2.9 | 231 |
| 135 | Spontaneous, pH-dependent membrane insertion of a transbilayer alpha-helix. <i>Biochemistry</i> , 1997 , 36, 15177-92 | 3.2 | 204 |
| 134 | Protein dynamics in the bacteriorhodopsin photocycle: submillisecond Fourier transform infrared spectra of the L, M, and N photointermediates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991 , 88, 2388-92 | 11.5 | 168 |
| 133 | A biophysical study of integral membrane protein folding. <i>Biochemistry</i> , 1997 , 36, 15156-76 | 3.2 | 163 |
| 132 | Surface-induced lamellar orientation of multilayer membrane arrays. Theoretical analysis and a new method with application to purple membrane fragments. <i>Biophysical Journal</i> , 1980 , 31, 65-96 | 2.9 | 144 |
| 131 | Conformational changes of bacteriorhodopsin detected by Fourier transform infrared difference spectroscopy. <i>Biochemical and Biophysical Research Communications</i> , 1981 , 103, 483-9 | 3.4 | 143 |
| 130 | Stabilization of the membrane protein bacteriorhodopsin to 140 $^{\circ}$ C in two-dimensional films. <i>Nature</i> , 1993 , 366, 48-50 | 50.4 | 139 |
| 129 | Millisecond Fourier-transform infrared difference spectra of bacteriorhodopsin's M412 photoproduct. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1987 , 84, 5221-5 | 11.5 | 127 |
| 128 | Structural model of the phospholamban ion channel complex in phospholipid membranes. <i>Journal of Molecular Biology</i> , 1995 , 248, 824-34 | 6.5 | 118 |
| 127 | Evidence for a tyrosine protonation change during the primary phototransition of bacteriorhodopsin at low temperature. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1986 , 83, 347-51 | 11.5 | 117 |
| 126 | Infrared evidence that the Schiff base of bacteriorhodopsin is protonated: bR570 and K intermediates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1982 , 79, 4045-9 | 11.5 | 116 |
| 125 | Orientation of the bacteriorhodopsin chromophore probed by polarized Fourier transform infrared difference spectroscopy. <i>Biochemistry</i> , 1986 , 25, 7793-8 | 3.2 | 101 |
| 124 | Anomalous amide I infrared absorption of purple membrane. <i>Science</i> , 1979 , 204, 311-2 | 33.3 | 100 |
| 123 | Detection of a water molecule in the active-site of bacteriorhodopsin: hydrogen bonding changes during the primary photoreaction. <i>Biochemistry</i> , 1994 , 33, 12757-62 | 3.2 | 99 |

(2005-1987)

| 122 | Tyrosine and carboxyl protonation changes in the bacteriorhodopsin photocycle. 1. M412 and L550 intermediates. <i>Biochemistry</i> , 1987 , 26, 6696-707 | 3.2 | 98 |
|-----|--|----------------------------|----|
| 121 | Cell-free co-expression of functional membrane proteins and apolipoprotein, forming soluble nanolipoprotein particles. <i>Molecular and Cellular Proteomics</i> , 2008 , 7, 2246-53 | 7.6 | 93 |
| 120 | Vibrational spectroscopy of bacteriorhodopsin mutants: I. Tyrosine-185 protonates and deprotonates during the photocycle. <i>Proteins: Structure, Function and Bioinformatics</i> , 1988 , 3, 219-29 | 4.2 | 93 |
| 119 | Polarized Fourier transform infrared spectroscopy of bacteriorhodopsin. Transmembrane alpha helices are resistant to hydrogen/deuterium exchange. <i>Biophysical Journal</i> , 1990 , 58, 1539-46 | 2.9 | 92 |
| 118 | Fourier transform infrared difference spectroscopy of rhodopsin mutants: light activation of rhodopsin causes hydrogen-bonding change in residue aspartic acid-83 during meta II formation. <i>Biochemistry</i> , 1993 , 32, 10277-82 | 3.2 | 86 |
| 117 | Fourier transform infrared evidence for Schiff base alteration in the first step of the bacteriorhodopsin photocycle. <i>Biochemistry</i> , 1984 , 23, 6103-9 | 3.2 | 86 |
| 116 | A spectroscopic study of rhodopsin alpha-helix orientation. <i>Biophysical Journal</i> , 1980 , 31, 53-64 | 2.9 | 84 |
| 115 | Site-directed isotope labeling and ATR-FTIR difference spectroscopy of bacteriorhodopsin: the peptide carbonyl group of Tyr 185 is structurally active during the bR>N transition. <i>Biochemistry</i> , 1995 , 34, 2-6 | 3.2 | 82 |
| 114 | Time-resolved Fourier transform infrared spectroscopy of the bacteriorhodopsin mutant Tyr-185>Phe: Asp-96 reprotonates during O formation; Asp-85 and Asp-212 deprotonate during O decay. <i>Photochemistry and Photobiology</i> , 1992 , 56, 1085-95 | 3.6 | 80 |
| 113 | Fourier transform infrared spectroscopy and site-directed isotope labeling as a probe of local secondary structure in the transmembrane domain of phospholamban. <i>Biophysical Journal</i> , 1996 , 70, 1728-36 | 2.9 | 77 |
| 112 | Substitution of membrane-embedded aspartic acids in bacteriorhodopsin causes specific changes in different steps of the photochemical cycle. <i>Biochemistry</i> , 1989 , 28, 10035-42 | 3.2 | 72 |
| 111 | Nanometer molecular lithography. <i>Applied Physics Letters</i> , 1986 , 48, 676-678 | 3.4 | 70 |
| 110 | Photoexcitation of rhodopsin: conformation changes in the chromophore, protein and associated lipids as determined by FTIR difference spectroscopy. <i>Photochemistry and Photobiology</i> , 1988 , 48, 497-5 | 5 6 34 ⁶ | 66 |
| 109 | Fourier transform infrared difference spectroscopy of the nicotinic acetylcholine receptor: evidence for specific protein structural changes upon desensitization. <i>Biochemistry</i> , 1993 , 32, 5448-54 | 3.2 | 65 |
| 108 | His-75 in proteorhodopsin, a novel component in light-driven proton translocation by primary pumps. <i>Journal of Biological Chemistry</i> , 2009 , 284, 2836-2843 | 5.4 | 64 |
| 107 | Incorporation of the nicotinic acetylcholine receptor into planar multilamellar films: characterization by fluorescence and Fourier transform infrared difference spectroscopy. <i>Biophysical Journal</i> , 1992 , 61, 983-92 | 2.9 | 60 |
| 106 | Site-directed isotope labelling and FTIR spectroscopy of bacteriorhodopsin. <i>Nature Structural Biology</i> , 1994 , 1, 512-7 | | 59 |
| 105 | Conformational dynamics of amyloid beta-protein assembly probed using intrinsic fluorescence. <i>Biochemistry</i> , 2005 , 44, 13365-76 | 3.2 | 58 |

| 104 | Opsin structure probed by raman spectroscopy of photoreceptor membranes. <i>Science</i> , 1976 , 191, 1176 | 5-83.3 | 58 |
|-----|--|--------|----|
| 103 | Fourier transform infrared study of the halorhodopsin chloride pump. <i>Biochemistry</i> , 1988 , 27, 2420-4 | 3.2 | 57 |
| 102 | Ultrasensitive fluorescence-based detection of nascent proteins in gels. <i>Analytical Biochemistry</i> , 2000 , 279, 218-25 | 3.1 | 56 |
| 101 | Fourier transform infrared evidence for a predominantly alpha-helical structure of the membrane bound channel forming COOH-terminal peptide of colicin E1. <i>Biophysical Journal</i> , 1991 , 59, 516-22 | 2.9 | 56 |
| 100 | Structural changes in the photoactive site of proteorhodopsin during the primary photoreaction. <i>Biochemistry</i> , 2004 , 43, 9075-83 | 3.2 | 55 |
| 99 | Evidence for rhodopsin refolding during the decay of Meta II. <i>Biophysical Journal</i> , 1987 , 51, 345-50 | 2.9 | 52 |
| 98 | Primary photochemistry of bacteriorhodopsin: comparison of Fourier transform infrared difference spectra with resonance Raman spectra. <i>Photochemistry and Photobiology</i> , 1984 , 40, 675-9 | 3.6 | 52 |
| 97 | Photocleavable biotin phosphoramidite for 5Send-labeling, affinity purification and phosphorylation of synthetic oligonucleotides. <i>Nucleic Acids Research</i> , 1996 , 24, 361-6 | 20.1 | 51 |
| 96 | Anti-kelch-like 12 and anti-hexokinase 1: novel autoantibodies in primary biliary cirrhosis. <i>Liver International</i> , 2015 , 35, 642-51 | 7.9 | 48 |
| 95 | A high-throughput nonisotopic protein truncation test. <i>Nature Biotechnology</i> , 2003 , 21, 194-7 | 44.5 | 48 |
| 94 | Vibrational spectroscopy of bacteriorhodopsin mutants: chromophore isomerization perturbs tryptophan-86. <i>Biochemistry</i> , 1989 , 28, 7052-9 | 3.2 | 47 |
| 93 | Conformational changes in bacteriorhodopsin studied by infrared attenuated total reflection. <i>Biophysical Journal</i> , 1987 , 52, 629-35 | 2.9 | 47 |
| 92 | Nonequilibrium linear behavior of biological systems. Existence of enzyme-mediated multidimensional inflection points. <i>Biophysical Journal</i> , 1980 , 30, 209-30 | 2.9 | 44 |
| 91 | X-ray diffraction and electron microscope study of phase separation in rod outer segment photoreceptor membrane multilayers. <i>Biophysical Journal</i> , 1982 , 39, 241-51 | 2.9 | 44 |
| 90 | Conformational changes detected in a sensory rhodopsin II-transducer complex. <i>Journal of Biological Chemistry</i> , 2003 , 278, 36556-62 | 5.4 | 43 |
| 89 | Cell-free N-terminal protein labeling using initiator suppressor tRNA. <i>Analytical Biochemistry</i> , 2004 , 326, 25-32 | 3.1 | 42 |
| 88 | Asp76 is the Schiff base counterion and proton acceptor in the proton-translocating form of sensory rhodopsin I. <i>Biochemistry</i> , 1996 , 35, 6690-6 | 3.2 | 42 |
| 87 | The Schiff base counterion of bacteriorhodopsin is protonated in sensory rhodopsin I: spectroscopic and functional characterization of the mutated proteins D76N and D76A. | 3.2 | 42 |

(1991-1995)

| 86 | Effect of carboxyl mutations on functional properties of bovine rhodopsin. <i>Biophysical Chemistry</i> , 1995 , 56, 79-87 | 3.5 | 42 | |
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| 85 | Photoactivation of rhodopsin causes an increased hydrogen-deuterium exchange of buried peptide groups. <i>Biophysical Journal</i> , 1998 , 74, 192-8 | 2.9 | 41 | |
| 84 | Conformational changes in the photocycle of Anabaena sensory rhodopsin: absence of the Schiff base counterion protonation signal. <i>Journal of Biological Chemistry</i> , 2006 , 281, 15208-14 | 5.4 | 40 | |
| 83 | Photoactivation of rhodopsin involves alterations in cysteine side chains: detection of an S-H band in the Meta I>Meta II FTIR difference spectrum. <i>Biophysical Journal</i> , 1994 , 66, 2085-91 | 2.9 | 40 | |
| 82 | Biomolecular/solid-state nanoheterostructures. <i>Applied Physics Letters</i> , 1990 , 56, 692-694 | 3.4 | 39 | |
| 81 | Vibrational spectroscopy of bacteriorhodopsin mutants: evidence for the interaction of proline-186 with the retinylidene chromophore. <i>Biochemistry</i> , 1990 , 29, 5954-60 | 3.2 | 39 | |
| 80 | FTIR evidence for tryptophan perturbations during the bacteriorhodopsin photocycle. <i>Journal of the American Chemical Society</i> , 1988 , 110, 7223-7224 | 16.4 | 39 | |
| 79 | Fourier transform Raman spectroscopy of the bacteriorhodopsin mutant Tyr-185>Phe: formation of a stable O-like species during light adaptation and detection of its transient N-like photoproduct. <i>Biochemistry</i> , 1993 , 32, 2272-81 | 3.2 | 38 | |
| 78 | Fourier transform infrared spectroscopic evidence for the existence of two conformations of the bacteriorhodopsin primary photoproduct at low temperature. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1985 , 808, 140-8 | 4.6 | 38 | |
| 77 | FTIR analysis of the SII540 intermediate of sensory rhodopsin II: Asp73 is the Schiff base proton acceptor. <i>Biochemistry</i> , 2000 , 39, 2823-30 | 3.2 | 37 | |
| 76 | Tyrosine structural changes detected during the photoactivation of rhodopsin. <i>Journal of Biological Chemistry</i> , 1998 , 273, 23735-9 | 5.4 | 36 | |
| 75 | Probing conformational changes in the nicotinic acetylcholine receptor by Fourier transform infrared difference spectroscopy. <i>Biophysical Journal</i> , 1992 , 62, 64-6 | 2.9 | 36 | |
| 74 | Photoactivation perturbs the membrane-embedded contacts between sensory rhodopsin II and its transducer. <i>Journal of Biological Chemistry</i> , 2005 , 280, 28365-9 | 5.4 | 35 | |
| 73 | Static and time-resolved absorption spectroscopy of the bacteriorhodopsin mutant Tyr-185>Phe: evidence for an equilibrium between bR570 and an O-like species. <i>Biochemistry</i> , 1993 , 32, 2263-71 | 3.2 | 35 | |
| 72 | Raman spectroscopy reveals direct chromophore interactions in the Leu/Gln105 spectral tuning switch of proteorhodopsins. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 11770-6 | 3.4 | 33 | |
| 71 | A Fourier transform infrared study of Neurospora rhodopsin: similarities with archaeal rhodopsins. <i>Photochemistry and Photobiology</i> , 2002 , 76, 341-9 | 3.6 | 33 | |
| 70 | Cell-free synthesis, functional refolding, and spectroscopic characterization of bacteriorhodopsin, an integral membrane protein. <i>Biochemistry</i> , 1993 , 32, 13777-81 | 3.2 | 33 | |
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| 67 | Raman spectroscopic study of the valinomycinKSCN complex. <i>Journal of Molecular Biology</i> , 1974 , 89, 205-22 | 6.5 | 33 |
| 66 | Photocleavable peptide-DNA conjugates: synthesis and applications to DNA analysis using MALDI-MS. <i>Nucleic Acids Research</i> , 1999 , 27, 4626-31 | 20.1 | 32 |
| 65 | FTIR difference spectroscopy of the bacteriorhodopsin mutant Tyr-185>Phe: detection of a stable O-like species and characterization of its photocycle at low temperature. <i>Biochemistry</i> , 1993 , 32, 2282- | 90 ^{3.2} | 31 |
| 64 | Quantitative analysis of resonance Raman spectra of purple membrane from Halobacterium halobium: L550 intermediate. <i>Biochemistry</i> , 1983 , 22, 3460-3466 | 3.2 | 29 |
| 63 | Substitution of amino acids in helix F of bacteriorhodopsin: effects on the photochemical cycle. <i>Biochemistry</i> , 1989 , 28, 10028-34 | 3.2 | 27 |
| 62 | Retinal chromophore structure and Schiff base interactions in red-shifted channelrhodopsin-1 from Chlamydomonas augustae. <i>Biochemistry</i> , 2014 , 53, 3961-70 | 3.2 | 26 |
| 61 | Protonation state of Glu142 differs in the green- and blue-absorbing variants of proteorhodopsin. <i>Biochemistry</i> , 2008 , 47, 3447-53 | 3.2 | 26 |
| 60 | INFRARED STUDIES OF BACTERIORHODOPSIN. Photochemistry and Photobiology, 1988, 47, 883-887 | 3.6 | 26 |
| 59 | Incorporation of photoreceptor membrane into a multilamellar film. <i>Biophysical Journal</i> , 1980 , 31, 45-5 | 2 2.9 | 26 |
| 58 | Raman spectroscopy of uncomplexed valinomycin. 2. Nonpolar and polar solution. <i>Journal of the American Chemical Society</i> , 1977 , 99, 2032-9 | 16.4 | 26 |
| 57 | Near-IR resonance Raman spectroscopy of archaerhodopsin 3: effects of transmembrane potential. Journal of Physical Chemistry B, 2012 , 116, 14592-601 | 3.4 | 25 |
| 56 | Subpicosecond protein backbone changes detected during the green-absorbing proteorhodopsin primary photoreaction. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 11824-31 | 3.4 | 25 |
| 55 | Ultrasensitive measurements of microbial rhodopsin photocycles using photochromic FRET. <i>Photochemistry and Photobiology</i> , 2012 , 88, 90-7 | 3.6 | 23 |
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| 52 | N-terminal labeling of proteins using initiator tRNA. <i>Methods</i> , 2005 , 36, 252-60 | 4.6 | 21 |
| 51 | Site-directed isotope labeling and FTIR spectroscopy: assignment of tyrosine bands in the bR>M difference spectrum of bacteriorhodopsin. <i>Biophysical Chemistry</i> , 1995 , 56, 63-70 | 3.5 | 21 |

| 50 | Photocleavable aminotag phosphoramidites for 5Stermini DNA/RNA labeling. <i>Nucleic Acids Research</i> , 1998 , 26, 3572-6 | 20.1 | 20 | |
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| 49 | Resonance Raman Study of an Anion Channelrhodopsin: Effects of Mutations near the Retinylidene Schiff Base. <i>Biochemistry</i> , 2016 , 55, 2371-80 | 3.2 | 20 | |
| 48 | Photocleavable affinity tags for isolation and detection of biomolecules. <i>Methods in Enzymology</i> , 1998 , 291, 135-54 | 1.7 | 19 | |
| 47 | Proton transfers in a channelrhodopsin-1 studied by Fourier transform infrared (FTIR) difference spectroscopy and site-directed mutagenesis. <i>Journal of Biological Chemistry</i> , 2015 , 290, 12719-30 | 5.4 | 18 | |
| 46 | Methionine changes in bacteriorhodopsin detected by FTIR and cell-free selenomethionine substitution. <i>Biophysical Journal</i> , 2003 , 84, 960-6 | 2.9 | 17 | |
| 45 | Bacteriorhodopsin M412 and BR605 protein conformations are similar Significance for proton transport. <i>FEBS Letters</i> , 1987 , 223, 289-293 | 3.8 | 17 | |
| 44 | Threonine-89 participates in the active site of bacteriorhodopsin: evidence for a role in color regulation and Schiff base proton transfer. <i>Biochemistry</i> , 1997 , 36, 7490-7 | 3.2 | 16 | |
| 43 | Photochemical control of the infectivity of adenoviral vectors using a novel photocleavable biotinylation reagent. <i>Chemistry and Biology</i> , 2002 , 9, 567-73 | | 16 | |
| 42 | Probing intramolecular orientations in rhodopsin and metarhodopsin II by polarized infrared difference spectroscopy. <i>Biochemistry</i> , 1999 , 38, 13200-9 | 3.2 | 16 | |
| 41 | Site-Directed Isotope Labeling and FT-IR Spectroscopy: The Tyr 185/Pro 186 Peptide Bond of Bacteriorhodopsin Is Perturbed during the Primary Photoreaction. <i>Journal of the American Chemical Society</i> , 1995 , 117, 11614-11615 | 16.4 | 15 | |
| 40 | Raman spectroscopy of uncomplexed valinomycin. I. The solid state. <i>Journal of the American Chemical Society</i> , 1977 , 99, 2024-32 | 16.4 | 15 | |
| 39 | Conformational changes in the archaerhodopsin-3 proton pump: detection of conserved strongly hydrogen bonded water networks. <i>Journal of Biological Physics</i> , 2012 , 38, 153-68 | 1.6 | 14 | |
| 38 | Comparison of the structural changes occurring during the primary phototransition of two different channelrhodopsins from Chlamydomonas algae. <i>Biochemistry</i> , 2015 , 54, 377-88 | 3.2 | 14 | |
| 37 | Multiplexed VeraCode bead-based serological immunoassay for colorectal cancer. <i>Journal of Immunological Methods</i> , 2013 , 400-401, 58-69 | 2.5 | 13 | |
| 36 | An ELISA-based high throughput protein truncation test for inherited breast cancer. <i>Breast Cancer Research</i> , 2010 , 12, R78 | 8.3 | 13 | |
| 35 | Models of ionic transport in biological membranes. Raman spectroscopy as a probe of valinomycin, gramicidin AŞ and rhodopsin conformations. <i>American Journal of Clinical Pathology</i> , 1975 , 63, 695-713 | 1.9 | 13 | |
| 34 | The early development and application of FTIR difference spectroscopy to membrane proteins: A personal perspective. <i>Biomedical Spectroscopy and Imaging</i> , 2016 , 5, 231-267 | 1.3 | 12 | |
| 33 | Similarity of bacteriorhodopsin structural changes triggered by chromophore removal and light-driven proton transport. <i>FEBS Letters</i> , 1997 , 407, 285-8 | 3.8 | 12 | |

| 32 | Different structural changes occur in blue- and green-proteorhodopsins during the primary photoreaction. <i>Biochemistry</i> , 2008 , 47, 11490-8 | 3.2 | 12 |
|----|--|-------|----|
| 31 | Matrix-assisted laser desorption/ionization mass spectrometry of DNA using photocleavable biotin. <i>New Biotechnology</i> , 1999 , 16, 127-33 | | 11 |
| 30 | Protein conformational changes during the bacteriorhodopsin photocycle. A Fourier transform infrared/resonance Raman study of the alkaline form of the mutant Asp-85>Asn. <i>Journal of Biological Chemistry</i> , 1995 , 270, 29746-51 | 5.4 | 10 |
| 29 | Structural Changes in an Anion Channelrhodopsin: Formation of the K and L Intermediates at 80 K. <i>Biochemistry</i> , 2017 , 56, 2197-2208 | 3.2 | 9 |
| 28 | Photocleavage-based affinity purification and printing of cell-free expressed proteins: application to proteome microarrays. <i>Analytical Biochemistry</i> , 2008 , 383, 103-15 | 3.1 | 9 |
| 27 | Proteome-wide drug screening using mass spectrometric imaging of bead-arrays. <i>Scientific Reports</i> , 2016 , 6, 26125 | 4.9 | 9 |
| 26 | Redshifted and Near-infrared Active Analog Pigments Based upon Archaerhodopsin-3. <i>Photochemistry and Photobiology</i> , 2019 , 95, 959-968 | 3.6 | 8 |
| 25 | Fourier transform infrared studies of an active proton transport pump. <i>Methods in Enzymology</i> , 1986 , 127, 343-53 | 1.7 | 8 |
| 24 | Highly Multiplexed Immunohistochemical MALDI-MS Imaging of Biomarkers in Tissues. <i>Journal of the American Society for Mass Spectrometry</i> , 2021 , 32, 977-988 | 3.5 | 8 |
| 23 | Raman spectroscopy of a near infrared absorbing proteorhodopsin: Similarities to the bacteriorhodopsin O photointermediate. <i>PLoS ONE</i> , 2018 , 13, e0209506 | 3.7 | 8 |
| 22 | Correlated matrix-assisted laser desorption/ionization mass spectrometry and fluorescent imaging of photocleavable peptide-coded random bead-arrays. <i>Rapid Communications in Mass Spectrometry</i> , 2014 , 28, 49-62 | 2.2 | 7 |
| 21 | Resolution extension by image summing in serial femtosecond crystallography of two-dimensional membrane-protein crystals. <i>IUCrJ</i> , 2018 , 5, 103-117 | 4.7 | 7 |
| 20 | Active water in protein-protein communication within the membrane: the case of SRII-HtrII signal relay. <i>Biochemistry</i> , 2009 , 48, 811-3 | 3.2 | 6 |
| 19 | Detection of threonine structural changes upon formation of the M-intermediate of bacteriorhodopsin: evidence for assignment to Thr-89. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1998 , 1365, 363-72 | 4.6 | 6 |
| 18 | Asp 46 can substitute Asp 96 as the Schiff base proton donor in bacteriorhodopsin. <i>Biochemistry</i> , 1995 , 34, 15599-606 | 3.2 | 6 |
| 17 | Electronic Preresonance Stimulated Raman Scattering Imaging of Red-Shifted Proteorhodopsins: Toward Quantitation of the Membrane Potential. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 4374- | -4384 | 5 |
| 16 | A Fourier Transform Infrared Study of Neurospora Rhodopsin: Similarities with Archaeal Rhodopsins¶□ <i>Photochemistry and Photobiology</i> , 2007 , 76, 341-349 | 3.6 | 4 |
| 15 | [76] Kinetic resonance raman spectroscopy of purple membrane using rotating sample. <i>Methods in Enzymology</i> , 1982 , 88, 643-648 | 1.7 | 4 |

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| 14 | The crystal structure of bromide-bound ACR1 reveals a pre-activated state in the transmembrane anion tunnel. <i>ELife</i> , 2021 , 10, | 8.9 | 4 |
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| 13 | Circular dichroism of oriented photoreceptor membrane film. <i>Biochemical and Biophysical Research Communications</i> , 1980 , 94, 618-24 | 3.4 | 3 |
| 12 | Cell-free protein synthesis systems: biotechnological applications. <i>Biotechnology and Genetic Engineering Reviews</i> , 2006 , 22, 151-69 | 4.1 | 2 |
| 11 | FTIR spectroscopy, site-directed mutagenesis, and isotope labeling: a new approach for studying membrane proteins 1992 , 1575, 109 | | 2 |
| 10 | Composite Biomolecular/Solid State Nanostructures. <i>Materials Research Society Symposia Proceedings</i> , 1989 , 174, 151 | | 2 |
| 9 | Photoactivation of rhodopsin: interplay between protein and chromophore. <i>Novartis Foundation Symposium</i> , 1999 , 224, 102-18; discussion 118-23 | | 2 |
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| 7 | Site-directed isotope labeling of membrane proteins: A new tool for spectroscopists. <i>Techniques in Protein Chemistry</i> , 1996 , 7, 151-159 | | 1 |
| 6 | Water molecules are active during the primary photoreaction of bacteriorhodopsin 1994 , 2089, 118 | | 1 |
| 5 | Photocleavage-based affinity purification of biomarkers from serum: Application to multiplex allergy testing. <i>PLoS ONE</i> , 2018 , 13, e0191987 | 3.7 | О |
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| 3 | Ftir Spectroscopy: The Detection Of Individual Chemical Groups In Complex Biomolecules 1989 , 1057, 44 | | |
| 2 | Protein Truncation Test (PTT) 2004, 1089-1094 | | |
| 1 | THE MOLECULAR ORGANIZATION AND FUNCTION OF BIOLOGICAL MEMBRANES: A POSSIBLE MICROSCOPIC PICTURE OF IONIC PERMEATION 1972 , 49-79 | | |