Martin Engelhard

List of Publications by Year
in descending order

94 papers	5,278 citations	76326 40 h-index	88630 70 g-index
100 all docs	100 docs citations	100 times ranked	3668 citing authors

#	Article	IF	Citations
1	True-atomic-resolution insights into the structure and functional role of linear chains and low-barrier hydrogen bonds in proteins. Nature Structural and Molecular Biology, 2022, 29, 440-450.	8.2	21
2	Molecular model of a sensor of two-component signaling system. Scientific Reports, 2021, 11, 10774.	3.3	14
3	Dimerization of the cellular prion protein inhibits propagation of scrapie prions. Journal of Biological Chemistry, 2018, 293, 8020-8031.	3.4	13
4	Alterations in the brain interactome of the intrinsically disordered N-terminal domain of the cellular prion protein (PrPC) in Alzheimerâ€™s disease. PLoS ONE, 2018, 13, e0197659.	2.5	20
5	Microbial Halorhodopsins: Light-Driven Chloride Pumps. Chemical Reviews, 2018, 118, 10629-10645.	47.7	64
6	Sensory Rhodopsin I and Sensory Rhodopsin <scp>II</scp> Form Trimers of Dimers in Complex with their Cognate Transducers. Photochemistry and Photobiology, 2017, 93, 796-804.	2.5	20
7	Quest for the chemical synthesis of proteins. Journal of Peptide Science, 2016, 22, 246-251.	1.4	9
8	Transient Conformational Changes of Sensory Rhodopsin II Investigated by Vibrational Stark Effect Probes. Journal of Physical Chemistry B, 2016, 120, 4383-4387.	2.6	15
9	Signaling and Adaptation Modulate the Dynamics of the Photosensoric Complex of Natronomonas pharaonis. PLoS Computational Biology, 2015, 11, e1004561.	3.2	15
10	Clustering and Dynamics of Phototransducer Signaling Domains Revealed by Site-Directed Spin Labeling Electron Paramagnetic Resonance on SRII/HtrII in Membranes and Nanodiscs. Biochemistry, 2015, 54, 349-362.	2.5	11
11	Of ion pumps, sensors and channels â€" Perspectives on microbial rhodopsins between science and history. Biochimica Et Biophysica Acta - Bioenergetics, 2014, 1837, 533-545.	1.0	92
12	Total chemical synthesis of a membrane protein domain analogue containing two transmembrane helices: functional reconstitution of the semisynthetic sensory rhodopsin/transducer complex. Journal of Peptide Science, 2014, 20, 137-144.	1.4	12
13	Photostability of 4,4â€²â€Dihydroxythioindigo, a Mimetic of Indigo. Angewandte Chemie - International Edition, 2014, 53, 591-594.	13.8	38
14	Lightâ€induced switching of HAMP domain conformation and dynamics revealed by timeâ€resolved EPR spectroscopy. FEBS Letters, 2014, 588, 3970-3976.	2.8	24
15	The Î±-Helical Structure of Prodomains Promotes Translocation of Intrinsically Disordered Neuropeptide Hormones into the Endoplasmic Reticulum. Journal of Biological Chemistry, 2013, 288, 13961-13973.	3.4	14
16	Rapid prediction of multi-dimensional NMR data sets. Journal of Biomolecular NMR, 2012, 54, 377-387.	2.8	35
17	Native chemical ligation in dimethylformamide can be performed chemoselectively without racemization. Journal of Peptide Science, 2012, 18, 312-316.	1.4	21
18	The Signal Transfer from the Receptor NpSRII to the Transducer NpHtrII IsÂNot Hampered by the D75N Mutation. Biophysical Journal, 2011, 100, 2275-2282.	0.5	13

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19	Chemical Biology of Prion Protein: Tools to Bridge the In Vitro/Vivo Interface. Topics in Current Chemistry, 2011, 305, 199-223.	4.0	3
20	Structural Characterization of Polyglutamine Fibrils by Solid-State NMR Spectroscopy. Journal of Molecular Biology, 2011, 412, 121-136.	4.2	88
21	Active State of Sensory Rhodopsin II: Structural Determinants for Signal Transfer and Proton Pumping. Journal of Molecular Biology, 2011, 412, 591-600.	4.2	31
22	Transmembrane signal transduction in archaeal phototaxis: The sensory rhodopsin II-transducer complex studied by electron paramagnetic resonance spectroscopy. European Journal of Cell Biology, 2011, 90, 731-739.	3.6	30
23	Complex Formation and Light Activation in Membrane-Embedded Sensory Rhodopsin II as Seen by Solid-State NMR Spectroscopy. Structure, 2010, 18, 293-300.	3.3	49
24	Synthesis of a GPI anchor module suitable for protein postâ€translational modification. Biopolymers, 2010, 94, 457-464.	2.4	12
25	Signal relay from sensory rhodopsin I to the cognate transducer HtrI: Assessing the critical change in hydrogen-bonding between Tyr-210 and Asn-53. Biophysical Chemistry, 2010, 150, 23-28.	2.8	3
26	Protein immobilization on liposomes and lipidâ€coated nanoparticles by protein <i>trans</i>â€splicing. Journal of Peptide Science, 2010, 16, 582-588.	1.4	20
27	Native chemical ligation of hydrophobic peptides in organic solvents. Journal of Peptide Science, 2010, 16, 558-562.	1.4	32
28	Molecular Impact of the Membrane Potential on the Regulatory Mechanism of Proton Transfer in Sensory Rhodopsin II. Journal of the American Chemical Society, 2010, 132, 10808-10815.	13.7	48
29	Translational Diffusion and Interaction of a Photoreceptor and Its Cognate Transducer Observed in Giant Unilamellar Vesicles by Using Dualâ€Focus FCS. ChemBioChem, 2009, 10, 1823-1829.	2.6	33
30	Functional Expression of the Signaling Complex Sensory Rhodopsin II/Transducer II from <i>Halobacterium salinarum</i> in <i>Escherichia coli</i>^{â€}. Photochemistry and Photobiology, 2009, 85, 521-528.	2.5	7
31	Primary Photoinduced Protein Response in Bacteriorhodopsin and Sensory Rhodopsin II. Journal of the American Chemical Society, 2009, 131, 14868-14878.	13.7	18
32	Primary Reaction of Sensory Rhodopsin II Mutant D75N and the Influence of Azide. Biochemistry, 2009, 48, 9677-9683.	2.5	5
33	Voltage- and pH-Dependent Changes in Vectoriality of Photocurrents Mediated by Wild-type and Mutant Proteorhodopsins upon Expression in Xenopus Oocytes. Journal of Molecular Biology, 2009, 393, 320-341.	4.2	49
34	Single-Molecule Force Spectroscopy Measures Structural Changes Induced by Light Activation and Transducer Binding in Sensory Rhodopsin II. Journal of Molecular Biology, 2009, 394, 383-390.	4.2	6
35	Green tea extracts interfere with the stressâ€protective activity of PrP^C and the formation of PrP^{Sc}. Journal of Neurochemistry, 2008, 107, 218-229.	3.9	64
36	Transducer Binding Establishes Localized Interactions to Tune Sensory Rhodopsin II. Structure, 2008, 16, 1206-1213.	3.3	30

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37	Microbial Rhodopsins: Scaffolds for Ion Pumps, Channels, and Sensors. , 2008, 45, 73-122.		78
38	Salt-driven Equilibrium between Two Conformations in the HAMP Domain from Natronomonas pharaonis. Journal of Biological Chemistry, 2008, 283, 28691-28701.	3.4	43
39	Functional Cell-free Synthesis of a Seven Helix Membrane Protein: In situ Insertion of Bacteriorhodopsin into Liposomes. Journal of Molecular Biology, 2007, 371, 639-648.	4.2	148
40	Expression of the halobacterial transducer protein HtrII fromNatronomonas pharaonisinEscherichia coli. FEBS Letters, 2007, 581, 1487-1494.	2.8	11
41	Secondary Structure, Dynamics, and Topology of a Seven-Helix Receptor in Native Membranes, Studied by Solid-State NMR Spectroscopy. Angewandte Chemie - International Edition, 2007, 46, 459-462.	13.8	184
42	Cover Picture: Secondary Structure, Dynamics, and Topology of a Seven-Helix Receptor in Native Membranes, Studied by Solid-State NMR Spectroscopy (Angew. Chem. Int. Ed. 3/2007). Angewandte Chemie - International Edition, 2007, 46, 309-309.	13.8	1
43	Semisynthetic Murine Prion Protein Equipped with a GPI Anchor Mimic Incorporates into Cellular Membranes. Chemistry and Biology, 2007, 14, 994-1006.	6.0	56
44	Analysis of Light-Induced Conformational Changes of Natronomonas pharaonis Sensory Rhodopsin II by Time Resolved Electron Paramagnetic Resonance Spectroscopyâ€. Photochemistry and Photobiology, 2007, 83, 263-272.	2.5	23
45	Time-resolved methods in Biophysics. 1. A novel pump and probe surface-enhanced resonance Raman approach for studying biological photoreceptors. Photochemical and Photobiological Sciences, 2006, 5, 1103.	2.9	7
46	First Steps of Retinal Photoisomerization in Proteorhodopsin. Biophysical Journal, 2006, 91, 255-262.	0.5	74
47	Anion Uptake in Halorhodopsin fromNatromonas pharaonisStudied by FTIR Spectroscopy:Â Consequences for the Anion Transport Mechanismâ€. Biochemistry, 2006, 45, 11578-11588.	2.5	40
48	Effects of Solubilization on the Structure and Function of the Sensory Rhodopsin II/Transducer Complex. Journal of Molecular Biology, 2006, 356, 1207-1221.	4.2	44
49	Development of the signal in sensory rhodopsin and its transfer to the cognate transducer. Nature, 2006, 440, 115-119.	27.8	169
50	C-Terminal Fluorescence Labeling of Proteins for Interaction Studies on the Single-Molecule Level. ChemBioChem, 2006, 7, 891-895.	2.6	22
51	Thetransâ€“cis isomerization reaction dynamics in sensory rhodopsin II by femtosecond time-resolved midinfrared spectroscopy: Chromophore and protein dynamics. Biopolymers, 2006, 82, 358-362.	2.4	15
52	Time-resolved resonance Raman spectroscopy of sensory rhodopsin II in the micro- and millisecond time range using gated cw excitation. Journal of Raman Spectroscopy, 2006, 37, 436-441.	2.5	17
53	Direct Readout of Protein-Protein Interactions by Mass Spectrometry from Protein-DNA Microarrays. Angewandte Chemie - International Edition, 2005, 44, 7635-7639.	13.8	43
54	Structural Analysis of a HAMP Domain. Journal of Biological Chemistry, 2005, 280, 38767-38775.	3.4	66

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55	Sensory rhodopsin II and bacteriorhodopsin: Light activated helix F movement. Photochemical and Photobiological Sciences, 2004, 3, 543.	2.9	64
56	Consequences of Counterion Mutation in Sensory Rhodopsin II of Natronobacterium pharaonis for Photoreaction and Receptor Activation: An FTIR Study. Biochemistry, 2004, 43, 995-1002.	2.5	16
57	The archaeal sensory rhodopsin II/transducer complex: a model for transmembrane signal transfer. FEBS Letters, 2004, 564, 219-224.	2.8	103
58	Synthesis of new conformationally rigid paramagnetic Î±-amino acids. Tetrahedron Letters, 2003, 44, 9213-9217.	1.4	20
59	Synthesis of proteinâ€“nucleic acid conjugates by expressed protein ligation. Chemical Communications, 2003, , 822-823.	4.1	81
60	Probing the Sensory Rhodopsin II Binding Domain of its Cognate Transducer by Calorimetry and Electrophysiology. Journal of Molecular Biology, 2003, 330, 1203-1213.	4.2	57
61	Time-Resolved FTIR Studies of Sensory Rhodopsin II (NpSRII) from Natronobacterium pharaonis: Implications for Proton Transport and Receptor Activation. Biophysical Journal, 2003, 84, 1208-1217.	0.5	59
62	Electric-Field Dependent Decays of Two Spectroscopically Different M-States of Photosensory Rhodopsin II from Natronobacterium pharaonis. Biophysical Journal, 2003, 84, 3864-3873.	0.5	12
63	Total chemical synthesis of a functional interacting protein pair: The protooncogene H-Ras and the Ras-binding domain of its effector c-Raf1. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 5075-5080.	7.1	57
64	Interpretation of Amide I Difference Bands Observed during Protein Reactions Using Site-Directed Isotopically Labeled Bacteriorhodopsin as a Model System. Journal of Physical Chemistry A, 2002, 106, 3553-3559.	2.5	27
65	Proteorhodopsin is a Light-driven Proton Pump with Variable Vectoriality. Journal of Molecular Biology, 2002, 321, 821-838.	4.2	225
66	Probing the Proton Channel and the Retinal Binding Site of Natronobacterium pharaonis Sensory Rhodopsin II. Biophysical Journal, 2002, 82, 2156-2164.	0.5	25
67	Combining Chemical and Biological Techniques to Produce Modified Proteins. ChemBioChem, 2002, 3, 399.	2.6	38
68	Molecular basis of transmembrane signalling by sensory rhodopsin IIâ€“transducer complex. Nature, 2002, 419, 484-487.	27.8	380
69	Static and Time-Resolved Step-Scan Fourier Transform Infrared Investigations of the Photoreaction of Halorhodopsin from Natronobacterium Pharaonis: Consequences for Models of the Anion Translocation Mechanism. Biophysical Journal, 2001, 81, 394-406.	0.5	61
70	Temperature and Halide Dependence of the Photocycle of Halorhodopsin from Natronobacterium pharaonis. Biophysical Journal, 2001, 81, 1600-1612.	0.5	78
71	Enthalpyâ˘'Entropy Compensation in a Photocycle:Â The K-to-L Transition in Sensory Rhodopsin II fromNatronobacterium pharaonis. Journal of the American Chemical Society, 2001, 123, 1766-1767.	13.7	30
72	A sensitive fluorescence monitor for the detection of activated Ras: total chemical synthesis of site-specifically labeled Ras binding domain of c-Raf1 immobilized on a surface. Chemistry and Biology, 2001, 8, 243-252.	6.0	21

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73	Thermodynamics of the Early Steps in the Photocycle of Natronobacterium pharaonis Halorhodopsin. Influence of Medium and of Anion Substitutionâ€Â¶. Photochemistry and Photobiology, 2001, 74, 495-503.	2.5	1
74	Thermodynamics of the Early Steps in the Photocycle of Natronobacterium pharaonis Halorhodopsin. Influence of Medium and of Anion Substitutionâ€Â¶. Photochemistry and Photobiology, 2001, 74, 495.	2.5	19
75	Time-resolved detection of transient movement of helix F in spin-labelled pharaonis sensory rhodopsin II 1 1Edited by W. Baumeister. Journal of Molecular Biology, 2000, 301, 881-891.	4.2	155
76	Aspartate 75 Mutation in Sensory Rhodopsin II from Natronobacterium pharaonis Does Not Influence the Production of the K-Like Intermediate, but Strongly Affects Its Relaxation Pathway. Biophysical Journal, 2000, 78, 2581-2589.	0.5	30
77	Resonance Raman spectroscopy of sensory rhodopsin II from Natronobacterium pharaonis. FEBS Letters, 2000, 472, 263-266.	2.8	43
78	Functional expression of His-tagged sensory rhodopsin I inEscherichia coli. FEBS Letters, 2000, 466, 67-69.	2.8	18
79	Purification of histidine tagged bacteriorhodopsin,pharaonishalorhodopsin andpharaonissensory rhodopsin II functionally expressed inEscherichia coli. FEBS Letters, 1999, 442, 198-202.	2.8	123
80	Cell-free synthesis of the Ras-binding domain of c-Raf-1: binding studies to fluorescently labelled H-Ras. FEBS Letters, 1999, 452, 375-378.	2.8	3
81	Time-Resolved Absorption and Photothermal Measurements with Recombinant Sensory Rhodopsin II from Natronobacterium pharaonis. Biophysical Journal, 1999, 77, 3277-3286.	0.5	38
82	Bioenergetics of the Archaea. Microbiology and Molecular Biology Reviews, 1999, 63, 570-620.	6.6	248
83	Transient Kinetic Studies on the Interaction of Ras and the Ras-Binding Domain of c-Raf-1 Reveal Rapid Equilibration of the Complexâ€. Biochemistry, 1998, 37, 14292-14299.	2.5	124
84	The Photophobic Receptor from Natronobacterium pharaonis: Temperature and pH Dependencies of the Photocycle of Sensory Rhodopsin II. Biophysical Journal, 1998, 75, 999-1009.	0.5	172
85	Electron Transfer Proteins from the Haloalkaliphilic ArchaeonNatronobacterium pharaonis:ÂPossible Components of the Respiratory Chain Include Cytochromebcand a Terminal Oxidase Cytochromeba3â€. Biochemistry, 1997, 36, 4471-4479.	2.5	56
86	ChromophoreâAnion Interactions in Halorhodopsin fromNatronobacterium pharaonisProbed by Time-Resolved Resonance Raman Spectroscopyâ€. Biochemistry, 1997, 36, 11012-11020.	2.5	55
87	Cytochrome ba3 from Natronobacterium pharaonis. An Archaeal Four-Subunit Cytochrome-c-Type Oxidase. FEBS Journal, 1997, 250, 332-341.	0.2	39
88	Blue Halorhodopsin from Natronobacterium pharaonis: Wavelength Regulation by Anions. Biochemistry, 1994, 33, 6387-6393.	2.5	110
89	Halocyanin, an archaebacterial blue copper protein (type I) from Natronobacterium pharaonis. Biochemistry, 1993, 32, 12894-12900.	2.5	56
90	IDENTIFICATION OF THE PROTON ACCEPTOR OF SCHIFF BASE DEPROTONATION IN BACTERIORHODOPSIN: A FOURIER-TRANSFORM-INFRARED STUDY OF THE MUTANT ASP85 â†' GLU IN ITS NATURAL LIPID ENVIRONMENT. Photochemistry and Photobiology, 1992, 56, 1073-1083.	2.5	62

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91	Biochemical and photochemical properties of the photophobic receptors from Halobacterium halobium and Natronobacterium pharaonis. FEBS Journal, 1992, 206, 359-366.	0.2	77
92	Proline residues undergo structural changes during proton pumping in bacteriorhodopsin. FEBS Letters, 1990, 261, 449-454.	2.8	47
93	A new synthetic route to tert-butyloxycarbonylaminoacyl-4-(oxymethyl)phenylacetamidomethyl-resin, an improved support for solid-phase peptide synthesis. Journal of Organic Chemistry, 1978, 43, 2845-2852.	3.2	350
94	Equilibrium Studies on the Refolding and Reactivation of Rabbit-Muscle Aldolase after Acid Dissociation. FEBS Journal, 1976, 67, 447-453.	0.2	28