## Christian Altenbach

List of Publications by Year in descending order

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56 papers

7,706 citations

38 h-index 54 g-index

56 all docs 56
docs citations

56 times ranked 4710 citing authors

#	Article	IF	CITATIONS
1	Identifying conformational changes with site-directed spin labeling. Nature Structural Biology, 2000, 7, 735-739.	9.7	737
2	Structural Insights into the Dynamic Process of $\hat{l}^2$ 2 -Adrenergic Receptor Signaling. Cell, 2015, 161, 1101-1111.	28.9	562
3	Transmembrane protein structure: spin labeling of bacteriorhodopsin mutants. Science, 1990, 248, 1088-1092.	12.6	488
4	High-resolution distance mapping in rhodopsin reveals the pattern of helix movement due to activation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7439-7444.	7.1	436
5	Watching proteins move using site-directed spin labeling. Structure, 1996, 4, 779-783.	3.3	433
6	Investigation of structure and dynamics in membrane proteins using site-directed spin labeling. Current Opinion in Structural Biology, 1994, 4, 566-573.	5.7	409
7	Rhodopsin structure, dynamics, and activation: A perspective from crystallography, site-directed spin labeling, sulfhydryl reactivity, and disulfide cross-linking. Advances in Protein Chemistry, 2003, 63, 243-290.	4.4	332
8	Structural Features and Light-Dependent Changes in the Cytoplasmic Interhelical Eâ°'F Loop Region of Rhodopsin:  A Site-Directed Spin-Labeling Study. Biochemistry, 1996, 35, 12470-12478.	2.5	301
9	Structural studies on transmembrane proteins. 2. Spin labeling of bacteriorhodopsin mutants at unique cysteines. Biochemistry, 1989, 28, 7806-7812.	2.5	291
10	Technological advances in site-directed spin labeling of proteins. Current Opinion in Structural Biology, 2013, 23, 725-733.	5.7	262
11	Estimation of Inter-Residue Distances in Spin Labeled Proteins at Physiological Temperatures: Experimental Strategies and Practical Limitations. Biochemistry, 2001, 40, 15471-15482.	2.5	239
12	Site-directed spin labeling of a genetically encoded unnatural amino acid. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21637-21642.	7.1	230
13	Interaction of .alphacrystallin with Spin-Labeled Peptides. Biochemistry, 1995, 34, 509-516.	2.5	209
14	Sugar binding induces an outward facing conformation of Lacy. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 16504-16509.	7.1	161
15	SPIN LABELED CYSTEINES AS SENSORS FOR PROTEINâ€LIPID INTERACTION AND CONFORMATION IN RHODOPSIN. Photochemistry and Photobiology, 1992, 56, 1019-1033.	2.5	140
16	Structural Features and Light-Dependent Changes in the Sequence 306â^322 Extending from Helix VII to the Palmitoylation Sites in Rhodopsin: A Site-Directed Spin-Labeling Studyâ€,‡. Biochemistry, 1999, 38, 7931-7937.	2.5	129
17	Accessibility of Nitroxide Side Chains: Absolute Heisenberg Exchange Rates from Power Saturation EPR. Biophysical Journal, 2005, 89, 2103-2112.	0.5	125
18	Structure of the KcsA Potassium Channel fromStreptomyces lividans: A Site-Directed Spin Labeling Study of the Second Transmembrane Segmentâ€. Biochemistry, 1999, 38, 10324-10335.	2.5	122

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19	High Resolution Structure and Double Electron-Electron Resonance of the Zebrafish Voltage-dependent Anion Channel 2 Reveal an Oligomeric Population. Journal of Biological Chemistry, 2014, 289, 12566-12577.	3.4	116
20	Structure and Function in Rhodopsin. Cysteines 65 and 316 Are in Proximity in a Rhodopsin Mutant As Indicated by Disulfide Formation and Interactions between Attached Spin Labelsâ€. Biochemistry, 1996, 35, 14040-14046.	2.5	111
21	Structure and Function in Rhodopsin:  Mapping Light-Dependent Changes in Distance between Residue 316 in Helix 8 and Residues in the Sequence 60â^75, Covering the Cytoplasmic End of Helices TM1 and TM2 and Their Connection Loop CL1. Biochemistry, 2001, 40, 15493-15500.	2.5	110
22	Structural origins of constitutive activation in rhodopsin: Role of the K296/E113 salt bridge. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12508-12513.	7.1	109
23	Arrangement of subunits and ordering of $\hat{l}^2$ -strands in an amyloid sheet. Nature Structural Biology, 2002, 9, 734-739.	9.7	108
24	Structure and Function in Rhodopsin:  Mapping Light-Dependent Changes in Distance between Residue 65 in Helix TM1 and Residues in the Sequence 306Ⱂ319 at the Cytoplasmic End of Helix TM7 and in Helix H8. Biochemistry, 2001, 40, 15483-15492.	2.5	107
25	Structure and function of the visual arrestin oligomer. EMBO Journal, 2007, 26, 1726-1736.	7.8	104
26	Structural Features and Light-Dependent Changes in the Sequence 59â^'75 Connecting Helices I and II in Rhodopsin: A Site-Directed Spin-Labeling Studyâ€,‡. Biochemistry, 1999, 38, 7945-7949.	2.5	103
27	The aggregation state of spin-labeled melittin in solution and bound to phospholipid membranes: Evidence that membrane-bound melittin is monomeric. Proteins: Structure, Function and Bioinformatics, 1988, 3, 230-242.	2.6	101
28	Structural Features of the C-Terminal Domain of Bovine Rhodopsin: A Site-Directed Spin-Labeling Studyâ€,‡. Biochemistry, 1999, 38, 7918-7924.	2.5	101
29	Conformational States and Dynamics of Rhodopsin in Micelles and Bilayers. Biochemistry, 2006, 45, 5538-5550.	2.5	83
30	Single-Cysteine Substitution Mutants at Amino Acid Positions 306â^'321 in Rhodopsin, the Sequence between the Cytoplasmic End of Helix VII and the Palmitoylation Sites: Sulfhydryl Reactivity and Transducin Activation Reveal a Tertiary Structureâ€,‡. Biochemistry, 1999, 38, 7925-7930.	2.5	80
31	Single-Cysteine Substitution Mutants at Amino Acid Positions 55â^'75, the Sequence Connecting the Cytoplasmic Ends of Helices I and II in Rhodopsin: Reactivity of the Sulfhydryl Groups and Their Derivatives Identifies a Tertiary Structure that Changes upon Light-Activationâ€,‡. Biochemistry, 1999, 38, 7938-7944.	2.5	69
32	Identification of a Subunit Interface in Transthyretin Amyloid Fibrils:  Evidence for Self-Assembly from Oligomeric Building Blocks. Biochemistry, 2001, 40, 9089-9096.	2.5	69
33	Accessibility and Dynamics of Nitroxide Side Chains in T4 Lysozyme Measured by Saturation Recovery EPR. Biophysical Journal, 2005, 89, 2059-2068.	0.5	65
34	G <sub>i</sub> - and G <sub>s</sub> -coupled GPCRs show different modes of G-protein binding. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 2383-2388.	7.1	64
35	Site-Directed Spin Labeling of Proteins: Applications to Diphtheria Toxin. , 2000, 145, 147-169.		50
36	Conformational selection and adaptation to ligand binding in T4 lysozyme cavity mutants. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4306-15.	7.1	46

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37	Exploring Structure, Dynamics, and Topology of Nitroxide Spin-Labeled Proteins Using Continuous-Wave Electron Paramagnetic Resonance Spectroscopy. Methods in Enzymology, 2015, 564, 59-100.	1.0	44
38	Structure and dynamics of an imidazoline nitroxide side chain with strongly hindered internal motion in proteins. Journal of Magnetic Resonance, 2013, 232, 53-61.	2.1	43
39	Structural States and Dynamics of the D-Loop in Actin. Biophysical Journal, 2012, 103, 930-939.	0.5	42
40	Conformation of the Diphtheria Toxin T Domain in Membranes: A Site-Directed Spin-Labeling Study of the TH8 Helix and TL5 Loopâ€. Biochemistry, 1999, 38, 10336-10343.	2.5	41
41	Engineering Visual Arrestin-1 with Special Functional Characteristics. Journal of Biological Chemistry, 2013, 288, 3394-3405.	3.4	32
42	Site directed spin labeling studies of structure and dynamics in bacteriorhodopsin. Biophysical Chemistry, 1995, 56, 89-94.	2.8	31
43	Probing the Dark State Tertiary Structure in the Cytoplasmic Domain of Rhodopsin:Â Proximities between Amino Acids Deduced from Spontaneous Disulfide Bond Formation between Cysteine Pairs Engineered in Cytoplasmic Loops 1, 3, and 4. Biochemistry, 2001, 40, 12479-12485.	2.5	29
44	Site-Directed Spin Labeling of Membrane Proteins. , 1994, , 224-248.		29
45	Nitroxide Scanning Electron Paramagnetic Resonance of Helices IV and V and the Intervening Loop in the Lactose Permease ofEscherichia coliâ€. Biochemistry, 1999, 38, 15970-15977.	2.5	28
46	Probing the Dark State Tertiary Structure in the Cytoplasmic Domain of Rhodopsin:Â Proximities between Amino Acids Deduced from Spontaneous Disulfide Bond Formation between Cys316 and Engineered Cysteines in Cytoplasmic Loop $1$ â $\in$ ,â $\in$ <sub>i</sub> . Biochemistry, 2001, 40, 12472-12478.	2.5	27
47	Rapid degeneration of rod photoreceptors expressing self-association-deficient arrestin-1 mutant. Cellular Signalling, 2013, 25, 2613-2624.	3.6	26
48	Protonation state of glutamate 73 regulates the formation of a specific dimeric association of mVDAC1. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E172-E179.	7.1	26
49	Self-Association of Arrestin Family Members. Handbook of Experimental Pharmacology, 2014, 219, 205-223.	1.8	25
50	Hydrophobic Loop Dynamics and Actin Filament Stability. Biochemistry, 2006, 45, 13576-13584.	2.5	21
51	Saturation Recovery EPR and Nitroxide Spin Labeling for Exploring Structure and Dynamics in Proteins. Methods in Enzymology, 2015, 564, 3-27.	1.0	15
52	An Eight Amino Acid Segment Controls Oligomerization and Preferred Conformation of the two Non-visual Arrestins. Journal of Molecular Biology, 2021, 433, 166790.	4.2	15
53	Site-directed spin labeling of a bacterial chemoreceptor reveals a dynamic, loosely packed transmembrane domain. Protein Science, 2002, 11, 1472-1481.	7.6	13
54	High-Pressure EPR and Site-Directed Spin Labeling for Mapping Molecular Flexibility in Proteins. Methods in Enzymology, 2015, 564, 29-57.	1.0	11

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55	Siteâ€directed spin labeling electron paramagnetic resonance study of the ORF1 protein from a mouse L1 retrotransposon. Protein Science, 2011, 20, 1231-1243.	7.6	3
56	Analysis of Saturation Recovery Amplitudes to Characterize Conformational Exchange in Spin-Labeled Proteins. Applied Magnetic Resonance, 2017, 48, 1315-1340.	1.2	3