List of Publications by Year in descending order

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ANDREAS MÃOCUCH

#	Article	IF	CITATIONS
1	Structure and Signaling Mechanism of Per-ARNT-Sim Domains. Structure, 2009, 17, 1282-1294.	1.6	457
2	Structure and Function of Plant Photoreceptors. Annual Review of Plant Biology, 2010, 61, 21-47.	8.6	436
3	Design and Signaling Mechanism of Light-Regulated Histidine Kinases. Journal of Molecular Biology, 2009, 385, 1433-1444.	2.0	316
4	End-to-end distance distributions and intrachain diffusion constants in unfolded polypeptide chains indicate intramolecular hydrogen bond formation. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12394-12399.	3.3	230
5	Structural Basis for Light-dependent Signaling in the Dimeric LOV Domain of the Photosensor YtvA. Journal of Molecular Biology, 2007, 373, 112-126.	2.0	211
6	From Dusk till Dawn: One-Plasmid Systems for Light-Regulated Gene Expression. Journal of Molecular Biology, 2012, 416, 534-542.	2.0	207
7	Effect of Proline and Glycine Residues on Dynamics and Barriers of Loop Formation in Polypeptide Chains. Journal of the American Chemical Society, 2005, 127, 3346-3352.	6.6	199
8	Engineered photoreceptors as novel optogenetic tools. Photochemical and Photobiological Sciences, 2010, 9, 1286-1300.	1.6	195
9	Blue-Light Receptors for Optogenetics. Chemical Reviews, 2018, 118, 10659-10709.	23.0	176
10	Full-Length Structure of a Sensor Histidine Kinase Pinpoints Coaxial Coiled Coils as Signal Transducers and Modulators. Structure, 2013, 21, 1127-1136.	1.6	165
11	Engineering of a red-light–activated human cAMP/cGMP-specific phosphodiesterase. Proceedings of the United States of America, 2014, 111, 8803-8808.	3.3	163
12	Molecular Basis for the Effect of Urea and Guanidinium Chloride on the Dynamics of Unfolded Polypeptide Chains. Journal of Molecular Biology, 2005, 345, 153-162.	2.0	123
13	Very Fast Folding and Association of a Trimerization Domain from Bacteriophage T4 Fibritin. Journal of Molecular Biology, 2004, 337, 905-915.	2.0	104
14	Photoreceptor engineering. Frontiers in Molecular Biosciences, 2015, 2, 30.	1.6	100
15	Engineering of temperature- and light-switchable Cas9 variants. Nucleic Acids Research, 2013, 44, 10003-10014.	6.5	95
16	Channelrhodopsin engineering and exploration of new optogenetic tools. Nature Methods, 2011, 8, 39-42.	9.0	93
17	Signal transduction in light–oxygen–voltage receptors lacking the adduct-forming cysteine residue. Nature Communications, 2015, 6, 10079.	5.8	86
18	A blue light receptor that mediates RNA binding and translational regulation. Nature Chemical Biology, 2019, 15, 1085-1092.	3.9	76

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19	Addition at the Molecular Level: Signal Integration in Designed Per–ARNT–Sim Receptor Proteins. Journal of Molecular Biology, 2010, 400, 477-486.	2.0	73
20	Photoactivatable Musselâ€Based Underwater Adhesive Proteins by an Expanded Genetic Code. ChemBioChem, 2017, 18, 1819-1823.	1.3	67
21	Sequential conformational transitions and α-helical supercoiling regulate a sensor histidine kinase. Nature Communications, 2017, 8, 284.	5.8	55
22	Signal transduction in photoreceptor histidine kinases. Protein Science, 2019, 28, 1923-1946.	3.1	55
23	Biochemical and Structural Insights into Substrate Binding and Catalytic Mechanism of Mammalian Poly(A) Polymerase. Journal of Molecular Biology, 2004, 341, 911-925.	2.0	42
24	Library-Aided Probing of Linker Determinants in Hybrid Photoreceptors. ACS Synthetic Biology, 2016, 5, 1117-1126.	1.9	42
25	Switchable Cas9. Current Opinion in Biotechnology, 2017, 48, 119-126.	3.3	38
26	Nanobody-directed targeting of optogenetic tools to study signaling in the primary cilium. ELife, 2020, 9, .	2.8	38
27	NMR-Spectroscopic Mapping of an Engineered Cavity in the I14A Mutant of HPr fromStaphylococcuscarnosusUsing Xenon. Journal of the American Chemical Society, 2003, 125, 8726-8727.	6.6	37
28	Time-Resolved X-Ray Solution Scattering Reveals the Structural Photoactivation of a Light-Oxygen-Voltage Photoreceptor. Structure, 2017, 25, 933-938.e3.	1.6	34
29	An Open-Source, Cross-Platform Resource for Nonlinear Least-Squares Curve Fitting. Journal of Chemical Education, 2018, 95, 2273-2278.	1.1	34
30	Charting the Signal Trajectory in a Light-Oxygen-Voltage Photoreceptor by Random Mutagenesis and Covariance Analysis. Journal of Biological Chemistry, 2013, 288, 29345-29355.	1.6	33
31	Biophysical, Mutational, and Functional Investigation of the Chromophore-Binding Pocket of Light-Oxygen-Voltage Photoreceptors. ACS Synthetic Biology, 2014, 3, 811-819.	1.9	33
32	Upgrading a microplate reader for photobiology and all-optical experiments. Photochemical and Photobiological Sciences, 2015, 14, 270-279.	1.6	32
33	Optogenetic Control by Pulsed Illumination. ChemBioChem, 2018, 19, 1296-1304.	1.3	31
34	Computational Aminoacyl-tRNA Synthetase Library Design for Photocaged Tyrosine. International Journal of Molecular Sciences, 2019, 20, 2343.	1.8	31
35	Cyanobacteriochromes in full color and three dimensions. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 806-807.	3.3	28
36	Blue-light reception through quaternary transitions. Scientific Reports, 2017, 7, 1385.	1.6	25

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37	Signal transduction in light-oxygen-voltage receptors lacking the active-site glutamine. Nature Communications, 2022, 13, 2618.	5.8	25
38	Revisiting and Redesigning Light-Activated Cyclic-Mononucleotide Phosphodiesterases. Journal of Molecular Biology, 2019, 431, 3029-3045.	2.0	22
39	Deconstructing and repurposing the light-regulated interplay between Arabidopsis phytochromes and interacting factors. Communications Biology, 2019, 2, 448.	2.0	22
40	Comparative analysis of two paradigm bacteriophytochromes reveals opposite functionalities in two-component signaling. Nature Communications, 2021, 12, 4394.	5.8	22
41	Characterization and engineering of photoactivated adenylyl cyclases. Biological Chemistry, 2019, 400, 429-441.	1.2	21
42	A Light-Oxygen-Voltage Receptor Integrates Light and Temperature. Journal of Molecular Biology, 2021, 433, 167107.	2.0	20
43	Optoribogenetic control of regulatory RNA molecules. Nature Communications, 2020, 11, 4825.	5.8	17
44	A restraint molecular dynamics and simulated annealing approach for protein homology modeling utilizing mean angles. BMC Bioinformatics, 2005, 6, 91.	1.2	15
45	Cyclic Nucleotide-Specific Optogenetics Highlights Compartmentalization of the Sperm Flagellum into cAMP Microdomains. Cells, 2019, 8, 648.	1.8	14
46	Programming genomes with light. Nature, 2013, 500, 406-408.	13.7	12
47	A structural model for the full-length blue light-sensing protein YtvA from Bacillus subtilis, based on EPR spectroscopy. Photochemical and Photobiological Sciences, 2013, 12, 1855-1863.	1.6	12
48	Solution structure of the active-centre mutant I14A of the histidine-containing phosphocarrier protein from Staphylococcus carnosus. FEBS Journal, 2004, 271, 4815-4824.	0.2	10
49	Identification of an atypical interaction site in the BTB domain of the MYC-interacting zinc-finger protein 1. Structure, 2021, 29, 1230-1240.e5.	1.6	10
50	Determination of residual dipolar couplings in homonuclear MOCCA-SIAM experiments. Journal of Biomolecular NMR, 2002, 23, 211-219.	1.6	8
51	Two-photon conversion of a bacterial phytochrome. Biophysical Journal, 2021, 120, 964-974.	0.2	8
52	PERMOL: restraint-based protein homology modeling using DYANA or CNS. Bioinformatics, 2005, 21, 2110-2111.	1.8	7
53	Pulsatile illumination for photobiology and optogenetics. Methods in Enzymology, 2019, 624, 227-248.	0.4	6
54	The Association Kinetics Encode the Light Dependence of Arabidopsis Phytochrome B Interactions. Journal of Molecular Biology, 2020, 432, 4327-4340.	2.0	6

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55	Guidelines for Photoreceptor Engineering. Methods in Molecular Biology, 2016, 1408, 389-403.	0.4	5
56	A Fluorometric Activity Assay for Light-Regulated Cyclic-Nucleotide-Monophosphate Actuators. Methods in Molecular Biology, 2016, 1408, 93-105.	0.4	4
57	1 The biophysics and engineering of signaling photoreceptors. , 2013, , 7-22.		4
58	Primer-Aided Truncation for the Creation of Hybrid Proteins. Methods in Molecular Biology, 2017, 1596, 287-304.	0.4	2
59	Cryo-Electron Microscopy of Arabidopsis thaliana Phytochrome A in Its Pr State Reveals Head-to-Head Homodimeric Architecture. Frontiers in Plant Science, 2021, 12, 663751.	1.7	2
60	Biochemie 2016: Optische Kontrolle zellulÃ r er Prozesse. Nachrichten Aus Der Chemie, 2017, 65, 309-313.	0.0	1
61	Photobiologically Directed Assembly of Gold Nanoparticles. Advanced Biology, 2021, 5, 2000179.	1.4	1
62	Design and Signaling Mechanism of Light-Regulated Histidine Kinases. Biophysical Journal, 2009, 96, 524a.	0.2	0
63	Corrigendum to "From Dusk Till Dawn: One-Plasmid Systems for Light-Regulated Gene Expression―[J. Mol. Biol. 416 (2012) 534–542]. Journal of Molecular Biology, 2014, 426, 500.	2.0	Ο
64	Editorial overview: Chemical biotechnology: Interdisciplinary approaches for the engineering of nucleic acids, proteins and cells. Current Opinion in Biotechnology, 2017, 48, v-vi.	3.3	0
65	Signaltransduktion einer lichtregulierten Sensorhistidinkinase. Nachrichten Aus Der Chemie, 2018, 66, 123-126.	0.0	0
66	Editorial overview: Synthetic sensors and signals — new tools for a new trade. Current Opinion in Structural Biology, 2019, 57, iii-v.	2.6	0
67	Molecular mechanisms of signal transduction by PAS sensor proteins. FASEB Journal, 2009, 23, LB282.	0.2	О