Oliver P Ernst

List of Publications by Year
in descending order

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53	6,544	159585	161849
papers	citations	30 h-index	54 g-index

58	58	58	6668
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Crystal structure of opsin in its G-protein-interacting conformation. Nature, 2008, 455, 497-502.	27.8	1,019
2	Microbial and Animal Rhodopsins: Structures, Functions, and Molecular Mechanisms. Chemical Reviews, 2014, 114, 126-163.	47.7	897
3	Crystal structure of rhodopsin bound to arrestin by femtosecond X-ray laser. Nature, 2015, 523, 561-567.	27.8	683
4	Crystal structure of metarhodopsin II. Nature, 2011, 471, 651-655.	27.8	620
5	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
6	Identification of Phosphorylation Codes for Arrestin Recruitment by G Protein-Coupled Receptors. Cell, 2017, 170, 457-469.e13.	28.9	344
7	Activation of the A2A adenosine G-protein-coupled receptor by conformational selection. Nature, 2016, 533, 265-268.	27.8	290
8	Cryo-EM structure of human rhodopsin bound to an inhibitory G protein. Nature, 2018, 558, 553-558.	27.8	230
9	Monomeric G protein-coupled receptor rhodopsin in solution activates its G protein transducin at the diffusion limit. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 10859-10864.	7.1	196
10	Local vibrational coherences drive the primary photochemistry of vision. Nature Chemistry, 2015, 7, 980-986.	13.6	162
11	Crystallogenesis of Membrane Proteins Mediated by Polymer-Bounded Lipid Nanodiscs. Structure, 2017, 25, 384-392.	3.3	128
12	Mechanistic insights into allosteric regulation of the A2A adenosine G protein-coupled receptor by physiological cations. Nature Communications, 2018, 9, 1372.	12.8	126
13	Constitutive phospholipid scramblase activity of a G protein-coupled receptor. Nature Communications, 2014, 5, 5115.	12.8	112
14	Structure of the glucagon receptor in complex with a glucagon analogue. Nature, 2018, 553, 106-110.	27.8	109
15	Low-dose fixed-target serial synchrotron crystallography. Acta Crystallographica Section D: Structural Biology, 2017, 73, 373-378.	2.3	91
16	Conformational equilibria of light-activated rhodopsin in nanodiscs. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E3268-E3275.	7.1	84
17	Fixed target combined with spectral mapping: approaching 100% hit rates for serial crystallography. Acta Crystallographica Section D: Structural Biology, 2016, 72, 944-955.	2.3	71
18	Opsin, a Structural Model for Olfactory Receptors?. Angewandte Chemie - International Edition, 2013, 52, 11021-11024.	13.8	66

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19	G _i - and G _s -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
20	Cryo-EM structure of the native rhodopsin dimer in nanodiscs. Journal of Biological Chemistry, 2019, 294, 14215-14230.	3.4	64
21	Structural Basis of the Activation of Heterotrimeric Gs-Protein by Isoproterenol-Bound Î²1-Adrenergic Receptor. Molecular Cell, 2020, 80, 59-71.e4.	9.7	60
22	Dimerization deficiency of enigmatic retinitis pigmentosa-linked rhodopsin mutants. Nature Communications, 2016, 7, 12832.	12.8	54
23	High-throughput in situ X-ray screening of and data collection from protein crystals at room temperature and under cryogenic conditions. Nature Protocols, 2018, 13, 260-292.	12.0	46
24	X-ray Crystallographic Structure and Oligomerization of Gloeobacter Rhodopsin. Scientific Reports, 2019, 9, 11283.	3.3	46
25	The Primary Photochemistry of Vision Occurs at the Molecular Speed Limit. Journal of Physical Chemistry B, 2017, 121, 4040-4047.	2.6	42
26	Molecular assembly of rhodopsin with G protein-coupled receptor kinases. Cell Research, 2017, 27, 728-747.	12.0	40
27	Phospholipid scrambling by rhodopsin. Photochemical and Photobiological Sciences, 2015, 14, 1922-1931.	2.9	39
28	The photocycle and ultrafast vibrational dynamics of bacteriorhodopsin in lipid nanodiscs. Physical Chemistry Chemical Physics, 2014, 16, 21310-21320.	2.8	37
29	Coupling of G Proteins to Reconstituted Monomers and Tetramers of the M2 Muscarinic Receptor. Journal of Biological Chemistry, 2014, 289, 24347-24365.	3.4	35
30	TakeTwo: an indexing algorithm suited to still images with known crystal parameters. Acta Crystallographica Section D: Structural Biology, 2016, 72, 956-965.	2.3	35
31	Accessible virtual reality of biomolecular structural models using the Autodesk Molecule Viewer. Nature Methods, 2017, 14, 1122-1123.	19.0	31
32	Recent advances in biophysical studies of rhodopsins â€“ Oligomerization, folding, and structure. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2017, 1865, 1512-1521.	2.3	27
33	Fixed-target serial oscillation crystallography at room temperature. IUCrJ, 2019, 6, 305-316.	2.2	26
34	Genetically Encoded Quinone Methides Enabling Rapid, Site-Specific, and Photocontrolled Protein Modification with Amine Reagents. Journal of the American Chemical Society, 2020, 142, 17057-17068.	13.7	25
35	Serial femtosecond and serial synchrotron crystallography can yield data of equivalent quality: A systematic comparison. Science Advances, 2021, 7, .	10.3	25
36	Light-independent phospholipid scramblase activity of bacteriorhodopsin from Halobacterium salinarum. Scientific Reports, 2017, 7, 9522.	3.3	24

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37	A Versatile System for High-Throughput In Situ X-ray Screening and Data Collection of Soluble and Membrane-Protein Crystals. Crystal Growth and Design, 2016, 16, 6318-6326.	3.0	22
38	The crystal structures of a chloride-pumping microbial rhodopsin and its proton-pumping mutant illuminate proton transfer determinants. Journal of Biological Chemistry, 2020, 295, 14793-14804.	3.4	19
39	Toward Precise Interpretation of DEER-Based Distance Distributions: Insights from Structural Characterization of V1 Spin-Labeled Side Chains. Biochemistry, 2016, 55, 5256-5263.	2.5	18
40	Excited-State Vibronic Dynamics of Bacteriorhodopsin from Two-Dimensional Electronic Photon Echo Spectroscopy and Multiconfigurational Quantum Chemistry. Journal of Physical Chemistry Letters, 2020, 11, 3889-3896.	4.6	16
41	7TM Domain Structure of Adhesion GPCRs. Handbook of Experimental Pharmacology, 2016, 234, 43-66.	1.8	13
42	Structural evidence for visual arrestin priming via complexation of phosphoinositols. Structure, 2022, 30, 263-277.e5.	3.3	12
43	Rapid and Facile Recombinant Expression of Bovine Rhodopsin in HEK293S GnTIâ^' Cells Using a PiggyBac Inducible System. Methods in Enzymology, 2015, 556, 307-330.	1.0	11
44	X-ray transparent microfluidic chips for high-throughput screening and optimization of in meso membrane protein crystallization. Biomicrofluidics, 2017, 11, 024118.	2.4	7
45	A Novel Polar Core and Weakly Fixed C-Tail in Squid Arrestin Provide New Insight into Interaction with Rhodopsin. Journal of Molecular Biology, 2018, 430, 4102-4118.	4.2	7
46	Synthesis of Chiral Spin-Labeled Amino Acids. Organic Letters, 2019, 21, 10149-10153.	4.6	7
47	The effect of phosphorylation on arrestinâ€“rhodopsin interaction in the squid visual system. Journal of Neurochemistry, 2015, 135, 1129-1139.	3.9	5
48	Electron paramagnetic resonance spectroscopy on G-protein-coupled receptors: Adopting strategies from related model systems. Current Opinion in Structural Biology, 2021, 69, 177-186.	5.7	5
49	Utilizing tagged paramagnetic shift reagents to monitor protein dynamics by NMR. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2017, 1865, 1555-1563.	2.3	4
50	Stationary Phase EPR Spectroscopy for Monitoring Membrane Protein Refolding by Conformational Response. Analytical Chemistry, 2019, 91, 1071-1079.	6.5	3
51	Does ketamine target olfactory receptors in the brain?. Science Signaling, 2015, 8, fs6.	3.6	1
52	3P035 Opsin, Structural Model for Olfactory Receptors(01A. Protein: Structure,Poster). Seibutsu Butsuri, 2013, 53, S217.	0.1	0
53	Insane in the membrane: developments in protein folding, protein transport, and signaling by GPCRs. Current Opinion in Structural Biology, 2021, 69, vi-viii.	5.7	0