Christoph von Ballmoos

List of Publications by Year
in descending order

58	2,633	201674	189892
papers	citations	27 h-index	50 g-index

62	62	62	2824
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Essentials for ATP Synthesis by F₁F₀ ATP Synthases. Annual Review of Biochemistry, 2009, 78, 649-672.	11.1	326
2	A two-domain elevator mechanism for sodium/proton antiport. Nature, 2013, 501, 573-577.	27.8	221
3	Unique Rotary ATP Synthase and Its Biological Diversity. Annual Review of Biophysics, 2008, 37, 43-64.	10.0	167
4	Engineered disulfide bonds support the functional rotation mechanism of multidrug efflux pump AcrB. Nature Structural and Molecular Biology, 2008, 15, 199-205.	8.2	142
5	Catalytic and mechanical cycles in Fâ€ATP synthases. EMBO Reports, 2006, 7, 276-282.	4.5	119
6	The ion channel of F-ATP synthase is the target of toxic organotin compounds. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 11239-11244.	7.1	88
7	Evidence for Structural Integrity in the Undecameric c-Rings Isolated from Sodium ATP Synthases. Journal of Molecular Biology, 2003, 325, 389-397.	4.2	80
8	Crystal structure of the sodiumâ€“proton antiporter NhaA dimer and new mechanistic insights. Journal of General Physiology, 2014, 144, 529-544.	1.9	79
9	Crucial Role of Asp408 in the Proton Translocation Pathway of Multidrug Transporter AcrB: Evidence from Site-Directed Mutagenesis and Carbodiimide Labeling. Biochemistry, 2009, 48, 5801-5812.	2.5	74
10	Scavenging of superoxide by a membrane-bound superoxide oxidase. Nature Chemical Biology, 2018, 14, 788-793.	8.0	71
11	Purification and Biochemical Characterization of the F 1 F o -ATP Synthase from Thermoalkaliphilic Bacillus sp. Strain TA2.A1. Journal of Bacteriology, 2003, 185, 4442-4449.	2.2	59
12	Two Distinct Proton Binding Sites in the ATP Synthase Family. Biochemistry, 2007, 46, 11800-11809.	2.5	54
13	Proton transfer in ba3 cytochrome c oxidase from Thermus thermophilus. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 650-657.	1.0	52
14	Kinetic coupling of the respiratory chain with ATP synthase, but not proton gradients, drives ATP production in cristae membranes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 2412-2421.	7.1	52
15	Splitting of the Oâ€“O bond at the heme-copper catalytic site of respiratory oxidases. Science Advances, 2017, 3, e1700279.	10.3	50
16	Torque Generation by the Fo motor of the Sodium ATPase. Biophysical Journal, 2004, 87, 2148-2163.	0.5	49
17	Î”Ïˆ and Î”pH are equivalent driving forces for proton transport through isolated F0 complexes of ATP synthases. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, 1301-1310.	1.0	48
18	Electrical Power Fuels Rotary ATP Synthase. Structure, 2003, 11, 1469-1473.	3.3	45

#	Article	IF	Citations
19	Regulatory role of the respiratory supercomplex factors in Saccharomyces cerevisiae. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4476-85.	7.1	45
20	Isolation of yeast complex IV in native lipid nanodiscs. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 2984-2992.	2.6	45
21	Dissecting the proton transport pathway in electrogenic Na ⁺ /H ⁺ antiporters. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1101-E1110.	7.1	43
22	Delivery of membrane proteins into small and giant unilamellar vesicles by chargeâ€mediated fusion. FEBS Letters, 2016, 590, 2051-2062.	2.8	41
23	The lateral distance between a proton pump and ATP synthase determines the ATP-synthesis rate. Scientific Reports, 2017, 7, 2926.	3.3	41
24	Mimicking respiratory phosphorylation using purified enzymes. Biochimica Et Biophysica Acta - Bioenergetics, 2016, 1857, 321-331.	1.0	40
25	Lipid-mediated Protein-protein Interactions Modulate Respiration-driven ATP Synthesis. Scientific Reports, 2016, 6, 24113.	3.3	38
26	Membrane Topography of the Coupling Ion Binding Site in Na+-translocating F1F0 ATP Synthase. Journal of Biological Chemistry, 2002, 277, 3504-3510.	3.4	36
27	Kinetic design of the respiratory oxidases. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 11057-11062.	7.1	36
28	ATP synthesis at physiological nucleotide concentrations. Scientific Reports, 2019, 9, 3070.	3.3	31
29	Current problems and future avenues in proteoliposome research. Biochemical Society Transactions, 2020, 48, 1473-1492.	3.4	29
30	CD31 (PECAM-1) Serves as the Endothelial Cell-Specific Receptor of Clostridium perfringens Î²-Toxin. Cell Host and Microbe, 2020, 28, 69-78.e6.	11.0	28
31	Functional asymmetry of the F₀ motor in bacterial ATP synthases. Molecular Microbiology, 2009, 72, 479-490.	2.5	27
32	SNARE-fusion mediated insertion of membrane proteins into native and artificial membranes. Nature Communications, 2014, 5, 4303.	12.8	26
33	ATP Synthesis by Decarboxylation Phosphorylation. Results and Problems in Cell Differentiation, 2007, 45, 153-184.	0.7	25
34	Arginineâ€induced conformational change in the câ€ring/aâ€subunit interface of ATP synthase. FEBS Journal, 2008, 275, 2137-2150.	4.7	25
35	Mutation of a single residue in the ba ₃ oxidase specifically impairs protonation of the pump site. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3397-3402.	7.1	23
36	Isolation, N-glycosylations and Function of a Hyaluronidase-Like Enzyme from the Venom of the Spider Cupiennius salei. PLoS ONE, 2015, 10, e0143963.	2.5	23

#	Article	IF	Citations
37	Reconstitution of respiratory oxidases in membrane nanodiscs for investigation of protonâ€coupled electron transfer. FEBS Letters, 2012, 586, 640-645.	2.8	21
38	Rapid Electron Transfer within the III-IV Supercomplex in Corynebacterium glutamicum. Scientific Reports, 2016, 6, 34098.	3.3	20
39	Membrane embedded location of Na+ or H+ binding sites on the rotor ring of F1 F0 ATP synthases. FEBS Journal, 2002, 269, 5581-5589.	0.2	19
40	The Membrane Modulates Internal Proton Transfer in Cytochrome c Oxidase. Biochemistry, 2012, 51, 1092-1100.	2.5	19
41	An alternative role of FoF1-ATP synthase in Escherichia coli: synthesis of thiamine triphosphate. Scientific Reports, 2013, 3, 1071.	3.3	19
42	Functional Role of Thr-312 and Thr-315 in the Proton-Transfer Pathway in ba₃ Cytochrome c Oxidase from Thermus thermophilus. Biochemistry, 2010, 49, 7033-7039.	2.5	18
43	Effect of lipid bilayer properties on the photocycle of green proteorhodopsin. Biochimica Et Biophysica Acta - Bioenergetics, 2015, 1847, 698-708.	1.0	17
44	Alternative proton binding mode in ATP synthases. Journal of Bioenergetics and Biomembranes, 2007, 39, 441-445.	2.3	15
45	Timing of Electron and Proton Transfer in the ba₃ Cytochrome c Oxidase from Thermus thermophilus. Biochemistry, 2012, 51, 4507-4517.	2.5	15
46	Activation of Proton Translocation by Respiratory Complex I. Biochemistry, 2017, 56, 5691-5697.	2.5	13
47	Towards a Synthetic Mitochondrion. Chimia, 2018, 72, 291.	0.6	13
48	A continuous fluorescent method for measuring Na+ transport. Analytical Biochemistry, 2004, 335, 334-337.	2.4	9
49	Selective and ATP-driven transport of ions across supported membranes into nanoporous carriers using gramicidin A and ATP synthase. Physical Chemistry Chemical Physics, 2013, 15, 2733.	2.8	9
50	Complete DNA sequence of the atp operon of the sodium-dependent F1Fo ATP synthase from Ilyobacter tartaricus and identification of the encoded subunits. Biochimica Et Biophysica Acta Gene Regulatory Mechanisms, 2003, 1625, 221-226.	2.4	7
51	The proton pumping bo oxidase from Vitreoscilla. Scientific Reports, 2019, 9, 4766.	3.3	7
52	The missing enzymatic link in syntrophic methane formation from fatty acids. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	7
53	Single Mutations That Redirect Internal Proton Transfer in the ba₃ Oxidase from Thermus thermophilus. Biochemistry, 2013, 52, 7022-7030.	2.5	6
54	Biochemical consequences of two clinically relevant ND-gene mutations in Escherichia coli respiratory complexÂI. Scientific Reports, 2021, 11, 12641.	3.3	6

#	Article	IF	Citations
55	Rapid Estimation of Membrane Protein Orientation in Liposomes. ChemBioChem, 2022, 23, .	2.6	6
56	Energy transfer between the nicotinamide nucleotide transhydrogenase and ATP synthase of Escherichia coli. Scientific Reports, 2021, 11, 21234.	3.3	4
57	Bifunctional DNA Duplexes Permit Efficient Incorporation of pH Probes into Liposomes. ChemBioChem, 2020, 21, 2219-2224.	2.6	3
58	Functional design of bacterial superoxide:quinone oxidoreductase. Biochimica Et Biophysica Acta - Bioenergetics, 2022, 1863, 148583.	1.0	2