Flemming Cornelius

List of Publications by Year
in descending order

92 papers	3,798 citations	136740 32 h-index	133063 59 g-index
93 all docs	93 docs citations	93 times ranked	2680 citing authors

#	Article	IF	Citations
1	Crystal structure of the sodiumâ€“potassium pump at 2.4â€‰Ã… resolution. Nature, 2009, 459, 446-450.	13.7	557
2	Crystal structure of the sodium-potassium pump (Na ⁺ ,K ⁺ -ATPase) with bound potassium and ouabain. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13742-13747.	3.3	298
3	Crystal structure of a Na+-bound Na+,K+-ATPase preceding the E1P state. Nature, 2013, 502, 201-206.	13.7	271
4	Modulation of Na,K-ATPase and Na-ATPase Activity by Phospholipids and Cholesterol. I. Steady-State Kinetics. Biochemistry, 2001, 40, 8842-8851.	1.2	166
5	Reversible Oxidative Modification. Circulation Research, 2009, 105, 185-193.	2.0	147
6	General and specific lipidâ€“protein interactions in Na,K-ATPase. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 1729-1743.	1.4	120
7	Functional reconstitution of the sodium pump. Kinetics of exchange reactions performed by reconstituted Na/K-ATPase. BBA - Biomembranes, 1991, 1071, 19-66.	7.9	112
8	Identification of a Phospholemman-like Protein from Shark Rectal Glands. Journal of Biological Chemistry, 2000, 275, 35969-35977.	1.6	108
9	Reconstitution of (Na+ + K+)-ATPase into phospholipid vesicles with full recovery of its specific activity. Biochimica Et Biophysica Acta - Biomembranes, 1984, 772, 357-373.	1.4	104
10	First Crystal Structures of Na+,K+-ATPase: New Light on the Oldest Ion Pump. Structure, 2011, 19, 1732-1738.	1.6	102
11	FXYD Proteins Reverse Inhibition of the Na+-K+ Pump Mediated by Glutathionylation of Its Î²1 Subunit. Journal of Biological Chemistry, 2011, 286, 18562-18572.	1.6	79
12	Modulation of Na,K-ATPase by Phospholipids and Cholesterol. II. Steady-State and Presteady-State Kineticsâ€. Biochemistry, 2003, 42, 8541-8549.	1.2	69
13	Na+î—,Na+ exchange mediated by (Na+ + K+)-ATPase reconstituted into liposomes. Evaluation of pump stoichiometry and response to ATP and ADP. Biochimica Et Biophysica Acta - Biomembranes, 1985, 818, 211-221.	1.4	62
14	A Structural View on the Functional Importance of the Sugar Moiety and Steroid Hydroxyls of Cardiotonic Steroids in Binding to Na,K-ATPase*. Journal of Biological Chemistry, 2013, 288, 6602-6616.	1.6	61
15	Regulation of Na,K-ATPase by PLMS, the Phospholemman-like Protein from Shark. Journal of Biological Chemistry, 2003, 278, 37427-37438.	1.6	59
16	New crystal structures of PII-type ATPases: excitement continues. Current Opinion in Structural Biology, 2013, 23, 507-514.	2.6	58
17	Rate Limitation of the Na+,K+-ATPase Pump Cycle. Biophysical Journal, 2001, 81, 2069-2081.	0.2	57
18	Cholesterol modulation of molecular activity of reconstituted shark Na+,K+-ATPase. Biochimica Et Biophysica Acta - Biomembranes, 1995, 1235, 205-212.	1.4	50

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19	Tonic contraction and the control of relaxation in a chemically skinned molluscan smooth muscle.. Journal of General Physiology, 1982, 79, 821-834.	0.9	45
20	Susceptibility of Î²1 Na+-K+ Pump Subunit to Glutathionylation and Oxidative Inhibition Depends on Conformational State of Pump. Journal of Biological Chemistry, 2012, 287, 12353-12364.	1.6	43
21	Functional regulation of reconstituted Na, K-ATPase by protein kinase A phosphorylation. FEBS Letters, 1996, 380, 277-280.	1.3	40
22	E2P Phosphoforms of Na,K-ATPase. I. Comparison of Phosphointermediates Formed from ATP and Pi by Their Reactivity toward Hydroxylamine and Vanadate. Biochemistry, 1998, 37, 13634-13642.	1.2	40
23	Cholesterol-Dependent Interaction of Polyunsaturated Phospholipids with Na,K-ATPase. Biochemistry, 2008, 47, 1652-1658.	1.2	40
24	Fluorescent styryl dyes as probes for Na,K-ATPase reaction mechanism: significance of the charge of the hydrophilic moiety of RH dyes. Biochemistry, 1995, 34, 16806-16814.	1.2	39
25	Mechanism of the Rate-Determining Step of the Na+,K+-ATPase Pump Cycleâ€. Biochemistry, 2002, 41, 9496-9507.	1.2	36
26	Functional Modulation of the Sodium Pump: The Regulatory Proteins â€œFixitâ€ Physiology, 2003, 18, 119-124.	1.6	36
27	Intrinsic reaction-cycle time scale of Na ⁺ ,K ⁺ -ATPase manifests itself in the lipidâ€“protein interactions of nonequilibrium membranes. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18442-18446.	3.3	36
28	Spatial distribution and activity of Na + /K + -ATPase in lipid bilayer membranes with phase boundaries. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 1390-1399.	1.4	36
29	E2P Phosphoforms of Na,K-ATPase. II. Interaction of Substrate and Cation-Binding Sites in Pi Phosphorylation of Na,K-ATPase. Biochemistry, 1998, 37, 16686-16696.	1.2	35
30	Metal Fluoride Complexes of Na,K-ATPase. Journal of Biological Chemistry, 2011, 286, 29882-29892.	1.6	35
31	Binding of cardiotonic steroids to Na ⁺ ,K ⁺ -ATPase in the E2P state. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	35
32	Protein Kinase C Phosphorylation of Purified Na,K-ATPase: C-Terminal Phosphorylation Sites at the Î±- and Î³-Subunits Close to the Inner Face of the Plasma Membrane. Biophysical Journal, 2002, 82, 1907-1919.	0.2	34
33	The regulation of tension in a chemically skinned molluscan smooth muscle: effect of Mg2+ on the Ca2+-activated tension generation.. Journal of General Physiology, 1980, 75, 709-725.	0.9	32
34	Modulation of Na,K-ATPase by associated small transmembrane regulatory proteins and by lipids. Journal of Bioenergetics and Biomembranes, 2001, 33, 415-423.	1.0	29
35	[15] Incorporationo f C12E8-solubilized Na+,K+-ATPase into liposomes: determination of sidednes and orientation. Methods in Enzymology, 1988, 156, 156-167.	0.4	28
36	Uncoupled Na+-efflux on reconstituted shark Na,K-ATPase is electrogenic. Biochemical and Biophysical Research Communications, 1989, 160, 801-807.	1.0	28

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37	Sequential substitution of K+ bound to Na+,K+-ATPase visualized by X-ray crystallography. Nature Communications, 2015, 6, 8004.	5.8	27
38	K+-Dependence of electrogenic transport by the NaKâ€“ATPase. Biochimica Et Biophysica Acta - Biomembranes, 1998, 1368, 184-200.	1.4	26
39	Rate Determination in Phosphorylation of Shark Rectal Na,K-ATPase by ATP: Temperature Sensitivity and Effects of ADP. Biophysical Journal, 1999, 77, 934-942.	0.2	26
40	Interaction of N-terminal peptide analogues of the Na+,K+-ATPase with membranes. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 1282-1291.	1.4	26
41	The sided action of Na+ on reconstituted shark Na+/K+-ATPase engaged in Na+Na+ exchange accompanied by ATP hydrolysis. II. Transmembrane allosteric effects on Na+ affinity. Biochimica Et Biophysica Acta - Biomembranes, 1988, 944, 223-232.	1.4	25
42	Mechanism of Mg2+ Binding in the Na+,K+-ATPase. Biophysical Journal, 2009, 96, 3753-3761.	0.2	25
43	Cholesterol depletion inhibits Na+,K+-ATPase activity in a near-native membrane environment. Journal of Biological Chemistry, 2019, 294, 5956-5969.	1.6	25
44	Electrogenic pump current of sarcoplasmic reticulum Ca2+-ATPase reconstituted at high lipid/protein ratio. FEBS Letters, 1991, 284, 46-50.	1.3	23
45	Phosphorylation/dephosphorylation of reconstituted shark Na+,K+-ATPase: one phosphorylation site per Î±Î² protomer. Biochimica Et Biophysica Acta - Biomembranes, 1995, 1235, 197-204.	1.4	23
46	Investigation of the enzymatic activity of the Na+,K+-ATPase via isothermal titration microcalorimetry. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 1540-1545.	0.5	23
47	Electrostatic Stabilization Plays a Central Role in Autoinhibitory Regulation of the Na+,K+-ATPase. Biophysical Journal, 2017, 112, 288-299.	0.2	22
48	Functional Significance of the Shark Na,K-ATPase N-Terminal Domain. Is the Structurally Variable N-Terminus Involved in Tissue-Specific Regulation by FXYD Proteins?. Biochemistry, 2005, 44, 13051-13062.	1.2	21
49	Tensionâ€length behaviour of a molluscan smooth muscle related to filament organisation. Acta Physiologica Scandinavica, 1978, 102, 167-180.	2.3	20
50	Interaction between Cardiotonic Steroids and Na,K-ATPase. Effects of pH and Ouabain-Induced Changes in Enzyme Conformation. Biochemistry, 2009, 48, 10056-10065.	1.2	20
51	The sided action of Na+ and of K+ on reconstituted shark (Na+ + K+)-ATPase engaged in Na+â^'Na+ exchange accompanied by ATP hydrolysis. I. The ATP activation curve. Biochimica Et Biophysica Acta - Biomembranes, 1987, 904, 353-364.	1.4	19
52	Interaction of FXYD10 (PLMS) with Na,K-ATPase from Shark Rectal Glands. Journal of Biological Chemistry, 2005, 280, 27776-27782.	1.6	19
53	Identification of Electric-Field-Dependent Steps in the Na+,K+-Pump Cycle. Biophysical Journal, 2014, 107, 1352-1363.	0.2	18
54	Direct Activation of Gastric H,K-ATPase by N-Terminal Protein Kinase C Phosphorylation. Comparison of the Acute Regulation Mechanisms of H,K-ATPase and Na,K-ATPase. Biophysical Journal, 2003, 84, 1690-1700.	0.2	17

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55	Interaction of ATP with the Phosphoenzyme of the Na⁺,K⁺-ATPase. Biochemistry, 2010, 49, 1248-1258.	1.2	16
56	Variable stoichiometry in reconstituted shark Na,K-ATPase engaged in uncoupled efflux. Biochimica Et Biophysica Acta - Biomembranes, 1990, 1026, 147-152.	1.4	14
57	ATP Binding Equilibria of the Na⁺,K⁺-ATPase. Biochemistry, 2008, 47, 13103-13114.	1.2	14
58	Modulation of FXYD Interaction with Na,K-ATPase by Anionic Phospholipids and Protein Kinase Phosphorylation. Biochemistry, 2007, 46, 2371-2379.	1.2	13
59	Inhibition of K+ Transport through Na+, K+-ATPase by Capsazepine: Role of Membrane Span 10 of the Î±-Subunit in the Modulation of Ion Gating. PLoS ONE, 2014, 9, e96909.	1.1	13
60	Exploring the raft-hypothesis by probing planar bilayer patches of free-standing giant vesicles at nanoscale resolution, with and without Na,K-ATPase. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 3041-3049.	1.4	13
61	The voltage-sensitive dye RH421 detects a Na+,K+-ATPase conformational change at the membrane surface. Biochimica Et Biophysica Acta - Biomembranes, 2017, 1859, 813-823.	1.4	13
62	Dual Mechanisms of Allosteric Acceleration of the Na+,K+-ATPase by ATP. Biophysical Journal, 2010, 98, 2290-2298.	0.2	12
63	Kinetics of K+ Occlusion by the Phosphoenzyme of the Na+,K+-ATPase. Biophysical Journal, 2011, 100, 70-79.	0.2	12
64	Membrane accessibility of glutathione. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 2430-2436.	1.4	12
65	Themes in Ion Pump Regulation. Annals of the New York Academy of Sciences, 2003, 986, 579-586.	1.8	11
66	Rb+ occlusion stabilized by vanadate in gastric H+/K+-ATPase at 25Â°C. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 316-322.	1.4	11
67	Glutathionylation-Dependence of Na + -K + -Pump Currents Can Mimic Reduced Subsarcolemmal Na + Diffusion. Biophysical Journal, 2016, 110, 1099-1109.	0.2	11
68	The effect of cytoplasmic K+ on the activity of the Na+/K+-ATPase. Biochimica Et Biophysica Acta - Biomembranes, 1991, 1067, 227-234.	1.4	10
69	Hydrophobic ion interaction on Na+ activation and dephosphorylation of reconstituted Na+,K+-ATPase. Biochimica Et Biophysica Acta - Biomembranes, 1995, 1235, 183-196.	1.4	10
70	Penetration of phospholipid membranes by poly-l-lysine depends on cholesterol and phospholipid composition. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183128.	1.4	10
71	Cryoelectron microscopy of Na ⁺ ,K ⁺ -ATPase in the two E2P states with and without cardiotonic steroids. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2123226119.	3.3	10
72	Inorganic phosphate in ehrlich ascites tumor cells and its distribution across the cell membrane. Biochimica Et Biophysica Acta - Biomembranes, 1978, 511, 213-223.	1.4	9

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73	Capturing suboptical dynamic structures in lipid bilayer patches formed from free-standing giant unilamellar vesicles. Nature Protocols, 2017, 12, 1563-1575.	5.5	9
74	A voltage-activated cation transport pathway associated with the sodium pump. Biochimica Et Biophysica Acta - Biomembranes, 1991, 1070, 497-500.	1.4	5
75	Cis-allosteric effects of cytoplasmic Na+/K+ discrimination at varying pH. Low-affinity multisite inhibition of cytoplasmic K+ in reconstituted Na+/K+-ATPase engaged in uncoupled Na+-efflux. Biochimica Et Biophysica Acta - Biomembranes, 1992, 1108, 190-200.	1.4	5
76	Kinetic Investigations of the Mechanism of the Rateâ€Determining Step of the Na⁺,K⁺â€ATPase Pump Cycle. Annals of the New York Academy of Sciences, 2003, 986, 159-162.	1.8	5
77	Liposomes in Reconstitution of Ion-Pumps. Electrogenic Properties of the Na+,K+-Atpase and the Sarcoplasmic Ca2+-Atpase. Journal of Liposome Research, 1995, 5, 399-412.	1.5	4
78	Fluorescent Styryl Dyes as Probes for Na,K-ATPase Reaction.. Annals of the New York Academy of Sciences, 1997, 834, 394-396.	1.8	4
79	Protein Kinase C Phosphorylation Directed at Novel Câ€Terminal Sites in Na,Kâ€ATPase. Annals of the New York Academy of Sciences, 2003, 986, 541-542.	1.8	4
80	Distinct pH dependencies of Na+/K+ selectivity at the two faces of Na,K-ATPase. Journal of Biological Chemistry, 2018, 293, 2195-2205.	1.6	4
81	Reconstitution of transmembrane protein Na+,K+-ATPase in giant unilamellar vesicles of lipid mixtures involving PSM, DOPC, DPPC and cholesterol at physiological buffer and temperature conditions. Protocol Exchange, 0, , .	0.3	4
82	Interaction between Substrate Site and Cation Binding Sites in PiPhosphorylation of Na,K-ATPase. Annals of the New York Academy of Sciences, 1997, 834, 390-393.	1.8	2
83	Order-disorder transitions of cytoplasmic N-termini in the mechanisms of P-type ATPases. Faraday Discussions, 2021, 232, 172-187.	1.6	2
84	Diversity of the E2P Phosphoforms of Na, K-ATPase. Annals of the New York Academy of Sciences, 1997, 834, 386-389.	1.8	1
85	PKA and PKC Phosphorylation of Gastric H,Kâ€ATPase. Annals of the New York Academy of Sciences, 2003, 986, 548-549.	1.8	1
86	X-Ray Crystallographic Study of Na,K-ATPase in Complex with Cardiotonic Steroids. Biophysical Journal, 2015, 108, 197a.	0.2	1
87	The sodium PUMP. Biomembranes: A Multi-Volume Treatise, 1996, 5, 133-184.	0.1	0
88	Species-specific peculiarities of functional reactions of the sodium pump to phosphorylation by protein kinase A. Journal of Evolutionary Biochemistry and Physiology, 2000, 36, 11-16.	0.2	0
89	Kinetics by X-Ray Crystallography: Sequential Substitution of K+ Bound To Na+, K+-ATPase. Biophysical Journal, 2016, 110, 629a.	0.2	0
90	To Image the Orientation and Spatial Distribution of Reconstituted Na+,K+-ATPase in Model Lipid Membranes. , 2019, , 29-46.		0

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91	Active Biomimetic Membranes. Biological and Medical Physics Series, 2011, , 113-135.	0.3	0
92	Displacement of Native FXYD Protein From Na+/K+-ATPase With Novel FXYD Peptide Derivatives: Effects on Doxorubicin Cytotoxicity. Frontiers in Oncology, 2022, 12, 859216.	1.3	0