

Christopher Miller

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

79
papers

7,402
citations

45
h-index

86
g-index

138
ext. papers

7,990
ext. citations

15.9
avg, IF

6.1
L-index

#	Paper	IF	Citations
79	Charybdotoxin, a protein inhibitor of single Ca ²⁺ -activated K ⁺ channels from mammalian skeletal muscle. <i>Nature</i> , 1985 , 313, 316-8	50.4	741
78	Secondary active transport mediated by a prokaryotic homologue of CLC Cl ⁻ channels. <i>Nature</i> , 2004 , 427, 803-7	50.4	523
77	Single streptomyces lividans K(+) channels: functional asymmetries and sidedness of proton activation. <i>Journal of General Physiology</i> , 1999 , 114, 551-60	3.4	288
76	KcsA: it's a potassium channel. <i>Journal of General Physiology</i> , 2001 , 118, 303-14	3.4	277
75	CLC chloride channels viewed through a transporter lens. <i>Nature</i> , 2006 , 440, 484-9	50.4	262
74	1990: annus mirabilis of potassium channels. <i>Science</i> , 1991 , 252, 1092-6	33.3	258
73	Homodimeric architecture of a CLC-type chloride ion channel. <i>Nature</i> , 1996 , 383, 337-40	50.4	235
72	Voltage-gated cation conductance channel from fragmented sarcoplasmic reticulum: steady-state electrical properties. <i>Journal of Membrane Biology</i> , 1978 , 40, 1-23	2.3	203
71	Ca ⁺⁺ -induced fusion of fragmented sarcoplasmic reticulum with artificial planar bilayers. <i>Journal of Membrane Biology</i> , 1976 , 30, 283-300	2.3	187
70	Functional reconstitution of a prokaryotic K ⁺ channel. <i>Journal of General Physiology</i> , 1998 , 111, 741-9	3.4	184
69	A biological role for prokaryotic CLC chloride channels. <i>Nature</i> , 2002 , 419, 715-8	50.4	178
68	Separate ion pathways in a Cl ⁻ /H ⁺ exchanger. <i>Journal of General Physiology</i> , 2005 , 126, 563-70	3.4	165
67	A thermodynamic framework for understanding temperature sensing by transient receptor potential (TRP) channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 19492-7	11.5	164
66	NMR study of the tetrameric KcsA potassium channel in detergent micelles. <i>Protein Science</i> , 2006 , 15, 684-98	6.3	156
65	Mapping function to structure in a channel-blocking peptide: electrostatic mutants of charybdotoxin. <i>Biochemistry</i> , 1992 , 31, 7749-55	3.2	152
64	A decade of CLC chloride channels: structure, mechanism, and many unsettled questions. <i>Annual Review of Biophysics and Biomolecular Structure</i> , 2000 , 29, 411-38		150
63	High-level expression, functional reconstitution, and quaternary structure of a prokaryotic CLC-type chloride channel. <i>Journal of General Physiology</i> , 1999 , 114, 713-22	3.4	142

62	An overview of the potassium channel family. <i>Genome Biology</i> , 2000 , 1, REVIEWS0004	18.3	137
61	Fusion of phospholipid vesicles reconstituted with cytochrome c oxidase and mitochondrial hydrophobic protein. <i>Journal of Membrane Biology</i> , 1976 , 26, 319-33	2.3	129
60	Purification, reconstitution, and subunit composition of a voltage-gated chloride channel from Torpedo electroplax. <i>Biochemistry</i> , 1994 , 33, 13189-98	3.2	127
59	Site-specific mutations in a minimal voltage-dependent K ⁺ channel alter ion selectivity and open-channel block. <i>Neuron</i> , 1991 , 7, 403-8	13.9	127
58	Ionic currents mediated by a prokaryotic homologue of CLC Cl ⁻ channels. <i>Journal of General Physiology</i> , 2004 , 123, 109-19	3.4	126
57	Uncoupling and turnover in a Cl ⁻ /H ⁺ exchange transporter. <i>Journal of General Physiology</i> , 2007 , 129, 317-29	3.4	111
56	Projection structure of a CLC-type chloride channel at 6.5 Å resolution. <i>Nature</i> , 2001 , 409, 219-23	50.4	109
55	The lipid-protein interface of a Shaker K(+) channel. <i>Journal of General Physiology</i> , 2000 , 115, 51-8	3.4	109
54	Voltage-dependent caesium blockade of a cation channel from fragmented sarcoplasmic reticulum. <i>Nature</i> , 1979 , 280, 807-810	50.4	109
53	Dual functions of a small regulatory subunit in the mitochondrial calcium uniporter complex. <i>ELife</i> , 2016 , 5,	8.9	106
52	Ca ⁺⁺ -induced fusion of proteoliposomes: dependence on transmembrane osmotic gradient. <i>Journal of Membrane Biology</i> , 1976 , 30, 271-82	2.3	103
51	Hanging gondola structure of the T1 domain in a voltage-gated K(+) channel. <i>Biochemistry</i> , 2000 , 39, 10347-52	3.2	96
50	Uncoupling of a CLC Cl ⁻ /H ⁺ exchange transporter by polyatomic anions. <i>Journal of Molecular Biology</i> , 2006 , 362, 682-90	6.5	93
49	Fluoride resistance and transport by riboswitch-controlled CLC antiporters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 15289-94	11.5	91
48	Ion permeation through a Cl ⁻ -selective channel designed from a CLC Cl ⁻ /H ⁺ exchanger. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 11194-9	11.5	90
47	Design, function and structure of a monomeric CLC transporter. <i>Nature</i> , 2010 , 468, 844-7	50.4	89
46	Synergism between halide binding and proton transport in a CLC-type exchanger. <i>Journal of Molecular Biology</i> , 2006 , 362, 691-9	6.5	88
45	A family of fluoride-specific ion channels with dual-topology architecture. <i>ELife</i> , 2013 , 2, e01084	8.9	79

44	Ionic hopping defended. <i>Journal of General Physiology</i> , 1999 , 113, 783-7	3.4	76
43	Crystal structures of a double-barrelled fluoride ion channel. <i>Nature</i> , 2015 , 525, 548-51	50.4	75
42	Decamethonium and hexamethonium block K ⁺ channels of sarcoplasmic reticulum. <i>Nature</i> , 1980 , 288, 495-7	50.4	71
41	K ⁺ channels lacking the ReramerizationRdomain: implications for pore structure. <i>Nature Structural Biology</i> , 1999 , 6, 1122-5		57
40	A provisional transport mechanism for a chloride channel-type Cl ⁻ /H ⁺ exchanger. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2009 , 364, 175-80	5.8	56
39	Intracellular proton-transfer mutants in a CLC Cl ⁻ /H ⁺ exchanger. <i>Journal of General Physiology</i> , 2009 , 133, 131-8	3.4	54
38	A bacterial arginine-agsmatine exchange transporter involved in extreme acid resistance. <i>Journal of Biological Chemistry</i> , 2007 , 282, 176-82	5.4	54
37	CLC Cl ⁻ /H ⁺ transporters constrained by covalent cross-linking. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 20659-65	11.5	47
36	Bacterial fluoride resistance, Fluc channels, and the weak acid accumulation effect. <i>Journal of General Physiology</i> , 2014 , 144, 257-61	3.4	45
35	Proteolytic control of the mitochondrial calcium uniporter complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 4388-4393	11.5	44
34	Potassium-selective block of barium permeation through single KcsA channels. <i>Journal of General Physiology</i> , 2011 , 138, 421-36	3.4	44
33	Ion channels: doing hard chemistry with hard ions. <i>Current Opinion in Chemical Biology</i> , 2000 , 4, 148-51	9.7	37
32	Proof of dual-topology architecture of Fluc F ⁻ channels with monobody blockers. <i>Nature Communications</i> , 2014 , 5, 5120	17.4	35
31	Structure of a slow CLC Cl ⁻ /H ⁺ antiporter from a cyanobacterium. <i>Biochemistry</i> , 2011 , 50, 788-94	3.2	32
30	A symmetry-driven search for electrostatic interaction partners in charybdotoxin and a voltage-gated K ⁺ channel. <i>Biochemistry</i> , 1996 , 35, 6181-7	3.2	32
29	F ⁻ /Cl ⁻ selectivity in CLCF-type F ⁻ /H ⁺ antiporters. <i>Journal of General Physiology</i> , 2014 , 144, 129-36	3.4	31
28	Fluoride-dependent interruption of the transport cycle of a CLC Cl ⁻ /H ⁺ antiporter. <i>Nature Chemical Biology</i> , 2013 , 9, 721-5	11.7	30
27	Introduction. The blurred boundary between channels and transporters. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2009 , 364, 145-7	5.8	29

26	Intracellular proton access in a Cl(-)/H(+) antiporter. <i>PLoS Biology</i> , 2012 , 10, e1001441	9.7	26
25	Reconstitution of ion channels. <i>Critical Reviews in Biochemistry</i> , 1985 , 19, 1-44		25
24	CFTR: break a pump, make a channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 959-60	11.5	23
23	Mechanistic signs of double-barreled structure in a fluoride ion channel. <i>ELife</i> , 2016 , 5,	8.9	23
22	Ion channel structure and function. <i>Science</i> , 1992 , 258, 240-1	33.3	22
21	A CLC-type F/H antiporter in ion-swapped conformations. <i>Nature Structural and Molecular Biology</i> , 2018 , 25, 601-606	17.6	16
20	In the beginning: a personal reminiscence on the origin and legacy of CLC-0, the Torpedo Cl(-) channel. <i>Journal of Physiology</i> , 2015 , 593, 4085-90	3.9	15
19	Two-sided block of a dual-topology F- channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 5697-701	11.5	15
18	Biophysics. Lonely voltage sensor seeks protons for permeation. <i>Science</i> , 2006 , 312, 534-5	33.3	13
17	Ion channel surprises: prokaryotes do it again!. <i>Neuron</i> , 2000 , 25, 7-9	13.9	12
16	Functional Monomerization of a CLC-Type Fluoride Transporter. <i>Journal of Molecular Biology</i> , 2015 , 427, 3607-3612	6.5	11
15	Molecular determinants of permeation in a fluoride-specific ion channel. <i>ELife</i> , 2017 , 6,	8.9	11
14	CLC channels: reading eukaryotic function through prokaryotic spectacles. <i>Journal of General Physiology</i> , 2003 , 122, 129-31	3.4	9
13	Nonelectrolyte distribution in mouse diaphragm muscle. I. The pattern of nonelectrolyte distribution and reversal of the insulin effect. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1974 , 339, 71-84	3.8	8
12	Molecular Interactions between a Fluoride Ion Channel and Synthetic Protein Blockers. <i>Biochemistry</i> , 2018 , 57, 1212-1218	3.2	5
11	Building a temperature-sensitive ion channel. <i>Cell</i> , 2014 , 158, 977-979	56.2	4
10	Everything you always wanted to know about Sachs seals. <i>Biophysical Journal</i> , 2009 , 97, 687	2.9	4
9	Nonelectrolyte distribution in mouse diaphragm muscle. II. Cell volume D-xylose distribution, and the effect of insulin in hypertonic solutions. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1974 , 339, 85-91	3.8	4

8	Model-free free energy for voltage-gated channels. <i>Journal of General Physiology</i> , 2012 , 139, 1-2	3.4	3
7	Author response: Dual functions of a small regulatory subunit in the mitochondrial calcium uniporter complex 2016 ,		2
6	Q-cubed mutant cues clues to CLC antiport mechanism. <i>Journal of General Physiology</i> , 2021 , 153,	3.4	2
5	Feel the force: Bio-electricity and the sensing of electric fields. <i>Biochemist</i> , 2011 , 33, 26-29	0.5	1
4	Influences: Childhood, boyhood, and youth. <i>Journal of General Physiology</i> , 2018 , 150, 649-651	3.4	0
3	Axe the army of cheap labour. <i>Nature</i> , 1996 , 384, 103-103	50.4	
2	Protein Penetrants: Handbook of Membrane Channels . Molecular and Cellular Physiology. Camillo Peracchia, Ed. Academic Press, San Diego, CA, 1994. xx, 591 pp., illus. \$150 or £92.. <i>Science</i> , 1995 , 267, 911-912	33.3	
1	David Christopher Gadsby. 26 March 1947– March 2019. <i>Biographical Memoirs of Fellows of the Royal Society</i> , 2020 , 68, 175-193	0.1	