Christopher Miller

List of Publications by Year
in descending order

87 papers	8,460 citations	50170 46 h-index	58464 82 g-index
138 all docs	138 docs citations	138 times ranked	4758 citing authors

#	Article	IF	Citations
1	Charybdotoxin, a protein inhibitor of single Ca2+-activated K+ channels from mammalian skeletal muscle. Nature, 1985, 313, 316-318.	13.7	793
2	Secondary active transport mediated by a prokaryotic homologue of ClC Cl- channels. Nature, 2004, 427, 803-807.	13.7	602
3	Kcsa. Journal of General Physiology, 2001, 118, 303-314.	0.9	314
4	ClC chloride channels viewed through a transporter lens. Nature, 2006, 440, 484-489.	13.7	314
5	Single Streptomyces lividans K+ Channels. Journal of General Physiology, 1999, 114, 551-560.	0.9	293
6	1990: annus mirabilis of potassium channels. Science, 1991, 252, 1092-1096.	6.0	274
7	Homodimeric architecture of a CIC-type chloride ion channel. Nature, 1996, 383, 337-340.	13.7	257
8	Voltage-gated cation conductance channel from fragmented sarcoplasmic reticulum: Steady-state electrical properties. Journal of Membrane Biology, 1978, 40, 1-23.	1.0	222
9	A thermodynamic framework for understanding temperature sensing by transient receptor potential (TRP) channels. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 19492-19497.	3.3	211
10	Ca++-induced fusion of fragmented sarcoplasmic reticulum with artificial planar bilayers. Journal of Membrane Biology, 1976, 30, 283-300.	1.0	204
11	A biological role for prokaryotic ClC chloride channels. Nature, 2002, 419, 715-718.	13.7	204
12	Separate Ion Pathways in a Clâ˜/H+ Exchanger. Journal of General Physiology, 2005, 126, 563-570.	0.9	203
13	Functional Reconstitution of a Prokaryotic K+ Channel. Journal of General Physiology, 1998, 111, 741-749.	0.9	201
14	An overview of the potassium channel family. Genome Biology, 2000, 1, reviews0004.1.	13.9	169
15	A Decade of CLC Chloride Channels: Structure, Mechanism, and Many Unsettled Questions. Annual Review of Biophysics and Biomolecular Structure, 2000, 29, 411-438.	18.3	167
16	NMR study of the tetrameric KcsA potassium channel in detergent micelles. Protein Science, 2006, 15, 684-698.	3.1	165
17	Mapping function to structure in a channel-blocking peptide: electrostatic mutants of charybdotoxin. Biochemistry, 1992, 31, 7749-7755.	1.2	164
18	High-Level Expression, Functional Reconstitution, and Quaternary Structure of a Prokaryotic Clc-Type Chloride Channel. Journal of General Physiology, 1999, 114, 713-722.	0.9	159

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19	Site-specific mutations in a minimal voltage-dependent K+ channel alter ion selectivity and open-channel block. Neuron, 1991, 7, 403-408.	3.8	138
20	Ionic Currents Mediated by a Prokaryotic Homologue of CLC Clâ^' Channels. Journal of General Physiology, 2004, 123, 109-119.	0.9	138
21	Purification, Reconstitution, and Subunit Composition of a Voltage-Gated Chloride Channel from Torpedo Electroplax. Biochemistry, 1994, 33, 13189-13198.	1.2	135
22	Dual functions of a small regulatory subunit in the mitochondrial calcium uniporter complex. ELife, 2016, 5, .	2.8	134
23	Fusion of phospholipid vesicles reconstituted with cytochromec oxidase and mitochondrial hydrophobic protein. Journal of Membrane Biology, 1976, 26, 319-333.	1.0	133
24	Uncoupling and Turnover in a Clâ^'/H+ Exchange Transporter. Journal of General Physiology, 2007, 129, 317-329.	0.9	131
25	Fluoride resistance and transport by riboswitch-controlled CLC antiporters. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15289-15294.	3.3	125
26	Projection structure of a ClC-type chloride channel at 6.5â€‰Ã… resolution. Nature, 2001, 409, 219-223.	13.7	120
27	The Lipidâ€“Protein Interface of aShaker K+ Channel. Journal of General Physiology, 2000, 115, 51-58.	0.9	119
28	Voltage-dependent caesium blockade of a cation channel from fragmented sarcoplasmic reticulum. Nature, 1979, 280, 807-810.	13.7	115
29	Design, function and structure of a monomeric ClC transporter. Nature, 2010, 468, 844-847.	13.7	112
30	Ca++-induced fusion of proteoliposomes: Dependence on transmembrane osmotic gradient. Journal of Membrane Biology, 1976, 30, 271-282.	1.0	110
31	A family of fluoride-specific ion channels with dual-topology architecture. ELife, 2013, 2, e01084.	2.8	110
32	Uncoupling of a CLC Clâ^'/H+ Exchange Transporter by Polyatomic Anions. Journal of Molecular Biology, 2006, 362, 682-690.	2.0	105
33	Crystal structures of a double-barrelled fluoride ion channel. Nature, 2015, 525, 548-551.	13.7	105
34	Hanging Gondola Structure of the T1 Domain in a Voltage-Gated K+Channelâ€. Biochemistry, 2000, 39, 10347-10352.	1.2	103
35	Synergism Between Halide Binding and Proton Transport in a CLC-type Exchanger. Journal of Molecular Biology, 2006, 362, 691-699.	2.0	103
36	Ion permeation through a Cl ^{â^'} -selective channel designed from a CLC Cl ^{â^'} /H ⁺ exchanger. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11194-11199.	3.3	97

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37	Ionic Hopping Defended. Journal of General Physiology, 1999, 113, 783-787.	0.9	78
38	Decamethonium and hexamethonium block K+ channels of sarcoplasmic reticulum. Nature, 1980, 288, 495-497.	13.7	77
39	See potassium run. Nature, 2001, 414, 23-24.	13.7	73
40	Bacterial fluoride resistance, Fluc channels, and the weak acid accumulation effect. Journal of General Physiology, 2014, 144, 257-261.	0.9	71
41	Intracellular Proton-Transfer Mutants in a CLC Clâ^'/H+ Exchanger. Journal of General Physiology, 2009, 133, 131-138.	0.9	68
42	Proteolytic control of the mitochondrial calcium uniporter complex. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4388-4393.	3.3	68
43	A provisional transport mechanism for a chloride channel-type Cl ^{â^'} /H ⁺ exchanger. Philosophical Transactions of the Royal Society B: Biological Sciences, 2009, 364, 175-180.	1.8	65
44	K+ channels lacking the 'tetramerization' domain: implications for pore structure. , 1999, 6, 1122-1125.		61
45	A Bacterial Arginine-Agmatine Exchange Transporter Involved in Extreme Acid Resistance. Journal of Biological Chemistry, 2007, 282, 176-182.	1.6	60
46	CLC Cl ^{â^'} /H ⁺ transporters constrained by covalent cross-linking. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 20659-20665.	3.3	54
47	Potassium-selective block of barium permeation through single KcsA channels. Journal of General Physiology, 2011, 138, 421-436.	0.9	51
48	Proof of dual-topology architecture of Fluc Fâ^' channels with monobody blockers. Nature Communications, 2014, 5, 5120.	5.8	47
49	Fâ^'/Clâ^' selectivity in CLCF-type Fâ^'/H+ antiporters. Journal of General Physiology, 2014, 144, 129-136.	0.9	46
50	Ion channels: doing hard chemistry with hard ions. Current Opinion in Chemical Biology, 2000, 4, 148-151.	2.8	42
51	Intracellular Proton Access in a Clâ^'/H+ Antiporter. PLoS Biology, 2012, 10, e1001441.	2.6	39
52	Fluoride-dependent interruption of the transport cycle of a CLC Clâ^'/H+ antiporter. Nature Chemical Biology, 2013, 9, 721-725.	3.9	39
53	A Symmetry-Driven Search for Electrostatic Interaction Partners in Charybdotoxin and a Voltage-Gated K+Channelâ€. Biochemistry, 1996, 35, 6181-6187.	1.2	38
54	Introduction. The blurred boundary between channels and transporters. Philosophical Transactions of the Royal Society B: Biological Sciences, 2009, 364, 145-147.	1.8	35

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55	Structure of a Slow CLC Cl^{â^'}/H⁺ Antiporter from a Cyanobacterium. Biochemistry, 2011, 50, 788-794.	1.2	35
56	Mechanistic signs of double-barreled structure in a fluoride ion channel. ELife, 2016, 5, .	2.8	33
57	A CLC-type F-/H+ antiporter in ion-swapped conformations. Nature Structural and Molecular Biology, 2018, 25, 601-606.	3.6	32
58	Reconstitution of Ion Channel. Critical Reviews in Biochemistry, 1985, 19, 1-44.	7.5	27
59	Ion channel structure and function. Science, 1992, 258, 240-241.	6.0	26
60	CFTR: Break a pump, make a channel. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 959-960.	3.3	26
61	Coughing up flu's proton channels. Nature, 2008, 451, 532-533.	13.7	20
62	Two-sided block of a dual-topology F ^{â^'} channel. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5697-5701.	3.3	20
63	Molecular determinants of permeation in a fluoride-specific ion channel. ELife, 2017, 6, .	2.8	20
64	In the beginning: a personal reminiscence on the origin and legacy of ClCâ€0, the â€˜Torpedo Cl^{â^'} channelâ€™. Journal of Physiology, 2015, 593, 4085-4090.	1.3	19
65	The inconstancy of the human heart. Nature, 1996, 379, 767-768.	13.7	15
66	BIOPHYSICS: Lonely Voltage Sensor Seeks Protons for Permeation. Science, 2006, 312, 534-535.	6.0	15
67	Functional Monomerization of a ClC-Type Fluoride Transporter. Journal of Molecular Biology, 2015, 427, 3607-3612.	2.0	14
68	Ion Channel Surprises. Neuron, 2000, 25, 7-9.	3.8	12
69	Cuddling up to channel activation. Nature, 1997, 389, 328-329.	13.7	11
70	ClC Channels. Journal of General Physiology, 2003, 122, 129-131.	0.9	11
71	Nonelectrolyte distribution in mouse diaphragm muscle. I. The pattern of nonelectrolyte distribution and reversal of the insulin effect. Biochimica Et Biophysica Acta - Biomembranes, 1974, 339, 71-84.	1.4	10
72	Molecular Interactions between a Fluoride Ion Channel and Synthetic Protein Blockers. Biochemistry, 2018, 57, 1212-1218.	1.2	9

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73	Sickly channels in mild disease. Nature, 1993, 362, 106-106.	13.7	7
74	Q-cubed mutant cues clues to CLC antiport mechanism. Journal of General Physiology, 2021, 153, .	0.9	7
75	Building a Temperature-Sensitive Ion Channel. Cell, 2014, 158, 977-979.	13.5	6
76	Nonelectrolyte distribution in mouse diaphragm muscle. II. cell volume, dxylose distribution, and the effect of insulin in hypertonic solutions. Biochimica Et Biophysica Acta - Biomembranes, 1974, 339, 85-91.	1.4	4
77	Everything You Always Wanted to Know about Sachs' Seals. Biophysical Journal, 2009, 97, 687.	0.2	4
78	Model-free free energy for voltage-gated channels. Journal of General Physiology, 2012, 139, 1-2.	0.9	4
79	A leak in the EAATs. Nature Structural and Molecular Biology, 2007, 14, 356-357.	3.6	3
80	Ion Channels Go to Stockholmâ€"This Time as Proteins. Neuron, 2003, 40, 1049-1051.	3.8	2
81	Influences: Childhood, boyhood, and youth. Journal of General Physiology, 2018, 150, 649-651.	0.9	1
82	Feel the force: Bio-electricity and the sensing of electric fields. Biochemist, 2011, 33, 26-29.	0.2	1
83	Axe the army of cheap labour. Nature, 1996, 384, 103-103.	13.7	0
84	David Christopher Gadsby. 26 March 1947â€"9 March 2019. Biographical Memoirs of Fellows of the Royal Society, 2020, 68, 175-193.	0.1	0
85	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 Â£92.. Science, 1995, 267, 911-912.	6.0	0
86	Weird Ionâ€¦Weird Ion Channels Mediating Resistance to Fluoride Toxicity. FASEB Journal, 2015, 29, .	0.2	0
87	Reductionism redux. ELife, 2016, 5, .	2.8	0