Catherine E Morris

List of Publications by Year
in descending order

75 papers	4,878 citations	186209 28 h-index	102432 66 g-index
78 all docs	78 docs citations	78 times ranked	3347 citing authors

#	Article	IF	Citations
1	The Donnan-dominated resting state of skeletal muscle fibers contributes to resilience and longevity in dystrophic fibers. Journal of General Physiology, 2022, 154, .	0.9	0
2	Cytotoxic Swelling of Sick Excitable Cells â€" Impaired Ion Homeostasis and Membrane Tension Homeostasis in Muscle and Neuron. Current Topics in Membranes, 2018, 81, 457-496.	0.5	7
3	A model for studying the energetics of sustained high frequency firing. PLoS ONE, 2018, 13, e0196508.	1.1	2
4	Calculating the Consequences of Left-Shifted Nav Channel Activity in Sick Excitable Cells. Handbook of Experimental Pharmacology, 2017, 246, 401-422.	0.9	7
5	Nav Channels in Damaged Membranes. Current Topics in Membranes, 2016, 78, 561-597.	0.5	10
6	The Hv1 proton channel responds to mechanical stimuli. Journal of General Physiology, 2016, 148, 405-418.	0.9	25
7	Mechanosensitive Gating of Kv Channels. PLoS ONE, 2015, 10, e0118335.	1.1	18
8	Stimulation-induced ectopicity and propagation windows in model damaged axons. Journal of Computational Neuroscience, 2014, 37, 523-531.	0.6	12
9	Membrane order parameters for interdigitated lipid bilayers measured via polarized total-internal-reflection fluorescence microscopy. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 2861-2869.	1.4	9
10	Stimulation-induced ectopicity and propagation windows in model damaged axons. BMC Neuroscience, 2014, 15, .	0.8	0
11	Action potential initiation in damaged axon initial segment. BMC Neuroscience, 2014, 15, .	0.8	3
12	Force Spectroscopy Measurements Show That Cortical Neurons Exposed to Excitotoxic Agonists Stiffen before Showing Evidence of Bleb Damage. PLoS ONE, 2013, 8, e73499.	1.1	19
13	Spontaneous Excitation Patterns Computed for Axons with Injury-like Impairments of Sodium Channels and Na/K Pumps. PLoS Computational Biology, 2012, 8, e1002664.	1.5	47
14	Coupled left-shift of Nav channels: modeling the Na+-loading and dysfunctional excitability of damaged axons. Journal of Computational Neuroscience, 2012, 33, 301-319.	0.6	64
15	Perturbed voltage-gated channel activity in perturbed bilayers: Implications for ectopic arrhythmias arising from damaged membrane. Progress in Biophysics and Molecular Biology, 2012, 110, 245-256.	1.4	16
16	Why are So Many Ion Channels Mechanosensitive?. , 2012, , 493-505.		9
17	Left-Shifted Nav Channels in Injured Bilayer: Primary Targets for Neuroprotective Nav Antagonists?. Frontiers in Pharmacology, 2012, 3, 19.	1.6	26
18	Trauma-Induced Nav Leak and Dysexcitability in Axonal Membranes: Simulating the Consequences of Mechanically-Induced Left-Shift of Transient Nav1.6 Current. Biophysical Journal, 2011, 100, 424a.	0.2	0

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19	Voltage-Gated Channel Mechanosensitivity: Fact or Friction?. Frontiers in Physiology, 2011, 2, 25.	1.3	75
20	Pacemaker, potassium, calcium, sodium: stretch modulation of the voltage-gated channels. , 2011, , 42-49.		7
21	Impaired stretch modulation in potentially lethal cardiac sodium channel mutants. Channels, 2010, 4, 12-21.	1.5	30
22	Modulation of KvAP Unitary Conductance and Gating by 1-Alkanols and Other Surface Active Agents. Biophysical Journal, 2010, 98, 762-772.	0.2	37
23	Effects of Applied Stretch on Native and Recombinant Cardiac Na+ Currents. , 2010, , 169-184.		1
24	Membrane trauma and Na⁺leak from Nav1.6 channels. American Journal of Physiology - Cell Physiology, 2009, 297, C823-C834.	2.1	80
25	Mechanosensitive Closed-Closed Transitions in Large Membrane Proteins: Osmoprotection and Tension Damping. Biophysical Journal, 2009, 97, 2761-2770.	0.2	19
26	Traditional AMPA receptor antagonists partially block Nav1.6-mediated persistent current. Neuropharmacology, 2008, 55, 1165-1171.	2.0	9
27	Dual Stretch Responses of mHCN2 Pacemaker Channels: Accelerated Activation, Accelerated Deactivation. Biophysical Journal, 2007, 92, 1559-1572.	0.2	54
28	Nav Channel Mechanosensitivity: Activation and Inactivation Accelerate Reversibly with Stretch. Biophysical Journal, 2007, 93, 822-833.	0.2	150
29	Lipid Stress at Play: Mechanosensitivity of Voltage-Gated Channels. Current Topics in Membranes, 2007, 59, 297-338.	0.5	42
30	Membrane Stretch Slows the Concerted Step prior to Opening in a Kv Channel. Journal of General Physiology, 2006, 127, 687-701.	0.9	56
31	Studying the Mechanosensitivity of Voltage-Gated Channels Using Oocyte Patches. Methods in Molecular Biology, 2006, 322, 315-329.	0.4	25
32	Membrane Tension Accelerates Rate-limiting Voltage-dependent Activation and Slow Inactivation Steps in a Shaker Channel. Journal of General Physiology, 2004, 123, 135-154.	0.9	56
33	Mechanosensitivity of N-Type Calcium Channel Currents. Biophysical Journal, 2002, 83, 2560-2574.	0.2	108
34	Membrane Stretch Accelerates Activation and Slow Inactivation in Shaker Channels with S3â€“S4 Linker Deletions. Biophysical Journal, 2002, 82, 2982-2994.	0.2	53
35	How did cells get their size?. The Anatomical Record, 2002, 268, 239-251.	2.3	30
36	Stretch-Activation and Stretch-Inactivation of Shaker-IR, a Voltage-Gated K+ Channel. Biophysical Journal, 2001, 80, 2678-2693.	0.2	110

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37	Molecular cloning and functional expression of Xenopus laevis oocyte ATP-activated P2X4 channels1The nucleotide sequence data reported in this paper have been deposited in the GenBank database under accession Nos. AF308148 (xP2X4a), AF308149 (xP2X4b), AF308150 (xP2X4c), AF308151 (xP2X4d), AF308152 (xP2X4e) and AF308153 (xP2X4f).1. Biochimica Et Biophysica Acta - Biomembranes, 2001, 1512, 111-124.	1.4	11
38	Mechanosensitive Membrane Traffic and an Optimal Strategy for Volume and Surface Area Regulation in CNS Neurons. American Zoologist, 2001, 41, 721-727.	0.7	2
39	Mechanosensitive Ion Channels in Eukaryotic Cells. , 2001, , 745-760.		5
40	The Membrane Skeleton: Mechanoprotector and Mediator of Mechanosensitive Surface Area. Cellular and Molecular Biology Letters, 2001, 6, 222-223.	2.7	4
41	Does a stretch-inactivated cation channel integrate osmotic and peptidergic signals?. Nature Neuroscience, 2000, 3, 847-847.	7.1	2
42	The spectrin skeleton of newly-invaginated plasma membrane. Journal of Muscle Research and Cell Motility, 2000, 21, 67-77.	0.9	11
43	Activation of mechanosensitive currents in traumatized membrane. American Journal of Physiology - Cell Physiology, 1999, 276, C318-C327.	2.1	63
44	F-actin at Newly Invaginated Membrane in Neurons: Implications for Surface Area Regulation. Journal of Membrane Biology, 1999, 171, 151-169.	1.0	24
45	Membrane Stretch Affects Gating Modes of a Skeletal Muscle Sodium Channel. Biophysical Journal, 1999, 77, 758-774.	0.2	76
46	Accumulation of daunomycin and fluorescent dyes by drug-transporting Malpighian tubule cells of the tobacco hornworn, Manduca sexta. Tissue and Cell, 1999, 31, 185-194.	1.0	9
47	Neuronal Plasma Membrane Dynamics Evoked by Osmomechanical Perturbations. Journal of Membrane Biology, 1998, 166, 223-235.	1.0	27
48	Membrane Tension in Swelling and Shrinking Molluscan Neurons. Journal of Neuroscience, 1998, 18, 6681-6692.	1.7	225
49	Chapter 14 Mechano-sensitive ion channels. Principles of Medical Biology, 1997, 7, 341-354.	0.1	0
50	Coiled mechanoreceptors inAplysia revealed by sensorin immunofluorescence and confocal microscopy. Invertebrate Neuroscience, 1996, 2, 129-134.	1.8	6
51	Sensorin-A immunocytochemistry reveals putative mechanosensory neurons inLymnaea CNS. Invertebrate Neuroscience, 1995, 1, 207-213.	1.8	12
52	Responses of neurons to extreme osmomechanical stress. Journal of Membrane Biology, 1995, 145, 21-31.	1.0	58
53	Discrete and reversible vacuole-like dilations induced by osmomechanical perturbation of neurons. Journal of Membrane Biology, 1995, 145, 33-47.	1.0	35
54	Pharmacology of stretchâ€activated K channels in <i>Lymnaea</i> neurones. British Journal of Pharmacology, 1995, 114, 180-186.	2.7	23

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55	Stretch-Sensitive Ion Channels. , 1995, , 483-489.		8
56	Stretch-Sensitive Ion Channels. , 1995, , 483-489.		0
57	A putative nicotine pump at the metabolic blood-brain barrier of the tobacco hornworm. Journal of Neurobiology, 1994, 25, 23-34.	3.7	91
58	FMRFamide and membrane stretch as activators of the Aplysia S-channel. Biophysical Journal, 1994, 66, 46-58.	0.2	53
59	Neural structures in the receptive field of pleural ganglion mechanosensory neurons of Aplysia californica. Cell and Tissue Research, 1993, 273, 487-497.	1.5	7
60	Stretch activation of the Aplysia S-channel. Journal of Membrane Biology, 1992, 127, 205-14.	1.0	38
61	Channels activated by stretch in neurons of a helix snail. Canadian Journal of Physiology and Pharmacology, 1992, 70, 207-213.	0.7	16
62	Are stretch-sensitive channels in molluscan cells and elsewhere physiological mechanotransducers?. Experientia, 1992, 48, 852-858.	1.2	31
63	Embryogenesis in the Presence of Blockers of Mechanosensitive Ion Channels. (embryogenesis/mechanosensitive ion channels/channel blockers/Xenopus/ascidians). Development Growth and Differentiation, 1991, 33, 437-442.	0.6	11
64	Mechanosensitive ion channels. Journal of Membrane Biology, 1990, 113, 93-107.	1.0	587
65	Osmotically-induced volume changes in isolated cells of a pond snail. Comparative Biochemistry and Physiology A, Comparative Physiology, 1989, 92, 479-483.	0.7	11
66	Activation by curare of acetylcholine receptor channels in a murine skeletal muscle cell line. Canadian Journal of Physiology and Pharmacology, 1989, 67, 152-158.	0.7	4
67	Stretch Activation of a K+ Channel in Molluscan Heart Cells. Journal of Experimental Biology, 1987, 127, 191-209.	0.8	110
68	Multiple conductance states of the acetylcholine receptor channel complex. Canadian Journal of Physiology and Pharmacology, 1986, 64, 347-355.	0.7	12
69	Electrophysiological effects of cholinergic agents on the CNS of a nicotine-resistant insect, the tobacco hornworm (Manduca sexta). The Journal of Experimental Zoology, 1984, 229, 361-374.	1.4	33
70	Central nervous system features of a nicotine-resistant insect, the tobacco hornworm Manduca sexta. Tissue and Cell, 1984, 16, 601-612.	1.0	6
71	Efflux of nicotine and its CNS metabolites from the nerve cord of the tobacco hornworm. Manduca sexta. Journal of Insect Physiology, 1983, 29, 953-959.	0.9	10
72	Efflux patterns for organic molecules from the CNS of the tobacco hornworm. Manduca sexta. Journal of Insect Physiology, 1983, 29, 961-966.	0.9	6

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73	Uptake and metabolism of nicotine by the CNS of a nicotine-resistant insect, the tobacco hornworm (Manduca sexta). Journal of Insect Physiology, 1983, 29, 807-817.	0.9	40
74	Successive openings of the same acetylcholine receptor channel are correlated in open time. Biophysical Journal, 1983, 42, 109-114.	0.2	172
75	Voltage oscillations in the barnacle giant muscle fiber. Biophysical Journal, 1981, 35, 193-213.	0.2	1,806