Leon D Islas

List of Publications by Year
in descending order

54 papers	1,925 citations	279798 23 h-index	265206 42 g-index
89 all docs	89 docs citations	89 times ranked	2060 citing authors

#	Article	IF	Citations
1	A single N-terminal cysteine in TRPV1 determines activation by pungent compounds from onion and garlic. Nature Neuroscience, 2008, 11, 255-261.	14.8	199
2	Lysophosphatidic acid directly activates TRPV1 through a C-terminal binding site. Nature Chemical Biology, 2012, 8, 78-85.	8.0	173
3	Voltage Sensitivity and Gating Charge in Shaker and Shab Family Potassium Channels. Journal of General Physiology, 1999, 114, 723-742.	1.9	155
4	Identification of a Binding Motif in the S5 Helix That Confers Cholesterol Sensitivity to the TRPV1 Ion Channel. Journal of Biological Chemistry, 2011, 286, 24966-24976.	3.4	119
5	Electrostatics and the Gating Pore of Shaker Potassium Channels. Journal of General Physiology, 2001, 117, 69-90.	1.9	118
6	Structural determinants of gating in the TRPV1 channel. Nature Structural and Molecular Biology, 2009, 16, 704-710.	8.2	100
7	Structure and Rearrangements in the Carboxy-Terminal Region of SpIH Channels. Structure, 2007, 15, 671-682.	3.3	77
8	The Role of Allosteric Coupling on Thermal Activation of Thermo-TRP Channels. Biophysical Journal, 2013, 104, 2160-2169.	0.5	67
9	pH-dependent modulation of the cloned renal K⁺ channel, ROMK. American Journal of Physiology - Renal Physiology, 1998, 275, F972-F981.	2.7	66
10	TRPV1 channels and the progesterone receptor Sig-1R interact to regulate pain. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E1657-E1666.	7.1	57
11	Inhibition of TRPV1 channels by a naturally occurring omega-9 fatty acid reduces pain and itch. Nature Communications, 2016, 7, 13092.	12.8	55
12	Short-range Molecular Rearrangements in Ion Channels Detected by Tryptophan Quenching of Bimane Fluorescence. Journal of General Physiology, 2006, 128, 337-346.	1.9	46
13	On the Mechanism of TBA Block of the TRPV1 Channel. Biophysical Journal, 2007, 92, 3901-3914.	0.5	42
14	Irreversible temperature gating in trpv1 sheds light on channel activation. ELife, 2018, 7, .	6.0	42
15	Two-Microelectrode Voltage Clamp of Xenopus Oocytes: Voltage Errors and Compensation for Local Current Flow. Biophysical Journal, 1999, 77, 1980-1991.	0.5	40
16	Properties of the Inner Pore Region of TRPV1 Channels Revealed by Block with Quaternary Ammoniums. Journal of General Physiology, 2008, 132, 547-562.	1.9	40
17	Coarse Architecture of the Transient Receptor Potential Vanilloid 1 (TRPV1) Ion Channel Determined by Fluorescence Resonance Energy Transfer. Journal of Biological Chemistry, 2013, 288, 29506-29517.	3.4	40
18	Voltage-dependent gating and gating charge measurements in the Kv1.2 potassium channel. Journal of General Physiology, 2015, 145, 345-358.	1.9	40

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19	Single molecule fluorescence studies of surface-adsorbed fibronectin. Biomaterials, 2006, 27, 679-690.	11.4	35
20	Different agonists induce distinct single-channel conductance states in TRPV1 channels. Journal of General Physiology, 2018, 150, 1735-1746.	1.9	35
21	Characterization of stretch-activated ion channels in cultured astrocytes. Glia, 1993, 8, 87-96.	4.9	29
22	What is new about mild temperature sensing? A review of recent findings. Temperature, 2019, 6, 132-141.	3.0	27
23	Uncoupling Charge Movement from Channel Opening in Voltage-gated Potassium Channels by Ruthenium Complexes. Journal of Biological Chemistry, 2011, 286, 16414-16425.	3.4	26
24	Currents through Hv1 channels deplete protons in their vicinity. Journal of General Physiology, 2016, 147, 127-136.	1.9	25
25	TRP channels: a journey towards a molecular understanding of pain. Nature Reviews Neuroscience, 2022, 23, 596-610.	10.2	24
26	The Contribution of the Ankyrin Repeat Domain of TRPV1 as a Thermal Module. Biophysical Journal, 2020, 118, 836-845.	0.5	23
27	Role of lysophosphatidic acid in ion channel function and disease. Journal of Neurophysiology, 2018, 120, 1198-1211.	1.8	19
28	State-dependent Block of CNG Channels by Dequalinium. Journal of General Physiology, 2004, 123, 295-304.	1.9	18
29	Functional diversity of potassium channel voltage-sensing domains. Channels, 2016, 10, 202-213.	2.8	18
30	TRP ion channels: Proteins with conformational flexibility. Channels, 2019, 13, 207-226.	2.8	16
31	Properties of the sodium current in rat chromaffin cells exposed to nerve growth factor in vitro. Journal of Neurophysiology, 1994, 72, 1938-1948.	1.8	15
32	The assembly and distribution inÂvivo of the Escherichia coli RNA degradosome. Biochimie, 2013, 95, 2034-2041.	2.6	15
33	Dequalinium. Journal of General Physiology, 2003, 121, 37-47.	1.9	13
34	KV1.2 channels inactivate through a mechanism similar to C-type inactivation. Journal of General Physiology, 2020, 152, .	1.9	13
35	K+-dependent stability and ion conduction of Shab K+ channels: a comparison with Shaker channels. Pflugers Archiv European Journal of Physiology, 2005, 450, 255-261.	2.8	10
36	Thrombin increases hyposmotic taurine efflux and accelerates % MathType!Translator!2!1!AMS LaTeX.tdl!TeX -- AMS-LaTeX! % MathType!MTEF!2!1!+- % feaaeaart1ev0aaatCvAUfeBSjuyZL2yd9gzLbvyNv2CaerbbjxAHX % garmWu51MyVXgatuuDJXwAK1uy0HwmaeHbfv3ySLgzG0uy0Hgip5wz % aebbnrfifHhDYfgasaacH8qrps0lbbf9q8WrFfeuY-Hhbbf9v8qqaq % Fr0xc9pk0xbba9q8WqFfea0-yr0RYxir-Jbba9q8aq0-yq-He9q8qq % Q8frFve9Fve9Ff0dmeaabaqaciGacaGaaeq	2.8	10

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37	Shab K+channel slow inactivation. Channels, 2013, 7, 97-108.	2.8	10
38	A simple method for fast temperature changes and its application to thermal activation of TRPV1 ion channels. Journal of Neuroscience Methods, 2015, 243, 120-125.	2.5	10
39	Discovery and characterization of Hv1-type proton channels in reef-building corals. ELife, 2021, 10, .	6.0	10
40	Thermal Effects and Sensitivity ofÂBiological Membranes. Current Topics in Membranes, 2014, 74, 1-17.	0.9	7
41	<scp>FRET</scp>â€based analysis and molecular modeling of the human <scp>GPN</scp>â€loop <scp>GTP</scp>ases 1 and 3 heterodimer unveils a dominantâ€negative protein complex. FEBS Journal, 2019, 286, 4797-4818.	4.7	7
42	Ion Channels in Analgesia Research. Methods in Molecular Biology, 2010, 617, 223-236.	0.9	7
43	The helical character of the S6 segment of TRPV1 channels. Channels, 2009, 3, 311-313.	2.8	4
44	A novel origin for calcium selectivity. ELife, 2020, 9, .	6.0	4
45	Recovery from slow inactivation of Shab K⁺channels. Channels, 2013, 7, 225-228.	2.8	2
46	The acid test for pH-dependent gating in cloned HV1 channels. Journal of General Physiology, 2018, 150, 781-782.	1.9	2
47	A rationally designed orthogonal synthetase for genetically encoded fluorescent amino acids. Heliyon, 2020, 6, e05140.	3.2	2
48	Effects of electrical polarization on the opening rate constant of a voltage-gated ion channel. Physical Review E, 2013, 88, 012720.	2.1	1
49	Manipulating transient receptor potential vanilloid 1 antagonists: How to cool down a hot molecule?. Acta Physiologica, 2018, 223, e13088.	3.8	1
50	Closing in on the heatâ€activation mechanisms of TRPV channels. Journal of Physiology, 2021, 599, 4733-4734.	2.9	1
51	Patch-Clamp Fluorometry and Its Applications to the Study of Ion Channels. Neuromethods, 2020, , 155-183.	0.3	1
52	The electric heart of hERG. Journal of General Physiology, 2013, 141, 409-411.	1.9	0
53	Preface. Current Topics in Membranes, 2014, 74, xiii-xiv.	0.9	0
54	Membrane pacman: small steps for the voltageâ€sensitive phosphatases. Journal of Physiology, 2014, 592, 823-824.	2.9	0