Baron Chanda

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Acylated and alkylated benzo(crown-ethers) form ion-dependent ion channels in biological membranes. Biophysical Journal, 2022, 121, 1105-1114.	0.5	2
2	Mapping temperature-dependent conformational change in the voltage-sensing domain of an engineered heat-activated K ⁺ channel. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	7
3	cAMP binding to closed pacemaker ion channels is non-cooperative. Nature, 2021, 595, 606-610.	27.8	18
4	Mapping Electromechanical Coupling Pathways in Voltage-Gated Ion Channels: Challenges and the Way Forward. Journal of Molecular Biology, 2021, 433, 167104.	4.2	13
5	Preparation of Giant Escherichia coli spheroplasts for Electrophysiological Recordings. Bio-protocol, 2021, 11, e4261.	0.4	0
6	Re-evaluation of the mechanism of cytotoxicity of dialkylated lariat ether compounds. RSC Advances, 2020, 10, 40391-40394.	3.6	5
7	Top-down machine learning approach for high-throughput single-molecule analysis. ELife, 2020, 9, .	6.0	33
8	Activation of the archaeal ion channel MthK is exquisitely regulated by temperature. ELife, 2020, 9, .	6.0	13
9	NMR Structural Analysis of Isolated Shaker Voltage-Sensing Domain in LPPG Micelles. Biophysical Journal, 2019, 117, 388-398.	0.5	3
10	Sodium channels caught in the act. Science, 2019, 363, 1278-1279.	12.6	4
11	The contribution of voltage clamp fluorometry to the understanding of channel and transporter mechanisms. Journal of General Physiology, 2019, 151, 1163-1172.	1.9	24
12	Bipolar switching by HCN voltage sensor underlies hyperpolarization activation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 670-678.	7.1	29
13	Helix breaking transition in the S4 of HCN channel is critical for hyperpolarization-dependent gating. ELife, 2019, 8, .	6.0	49
14	Dynamics and number of trans-SNARE complexes determine nascent fusion pore properties. Nature, 2018, 554, 260-263.	27.8	103
15	Gating interaction maps reveal a noncanonical electromechanical coupling mode in the Shaker K+ channel. Nature Structural and Molecular Biology, 2018, 25, 320-326.	8.2	61
16	Minimal molecular determinants of isoform-specific differences in efficacy in the HCN channel family. Journal of General Physiology, 2018, 150, 1203-1213.	1.9	14
17	Observing Singleâ€Molecule Dynamics at Millimolar Concentrations. Angewandte Chemie - International Edition, 2017, 56, 2399-2402.	13.8	42
18	Observing Singleâ€Molecule Dynamics at Millimolar Concentrations. Angewandte Chemie, 2017, 129, 2439-2442.	2.0	18

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19	The intrinsically liganded cyclic nucleotideâ€"binding homology domain promotes KCNH channel activation. Journal of General Physiology, 2017, 149, 249-260.	1.9	23
20	SnapShot: Channel Gating Mechanisms. Cell, 2017, 170, 594-594.e1.	28.9	14
21	Congruent pattern of accessibility identifies minimal pore gate in a non-symmetric voltage-gated sodium channel. Nature Communications, 2016, 7, 11608.	12.8	10
22	Exocytotic fusion pores are composed of both lipids and proteins. Nature Structural and Molecular Biology, 2016, 23, 67-73.	8.2	74
23	The hitchhikerâ€™s guide to the voltage-gated sodium channel galaxy. Journal of General Physiology, 2016, 147, 1-24.	1.9	299
24	Structure and dynamics underlying elementary ligand binding events in human pacemaking channels. ELife, 2016, 5, .	6.0	42
25	How to open a proton poreâ€"more than S4?. Nature Structural and Molecular Biology, 2015, 22, 277-278.	8.2	2
26	Evolutionarily conserved intracellular gate of voltage-dependent sodium channels. Nature Communications, 2014, 5, 3420.	12.8	39
27	Interfacial gating triad is crucial for electromechanical transduction in voltage-activated potassium channels. Journal of General Physiology, 2014, 144, 457-467.	1.9	15
28	A self-consistent approach for determining pairwise interactions that underlie channel activation. Journal of General Physiology, 2014, 144, 441-455.	1.9	15
29	Generalized Interaction Energy Analysis of Intersubunit Linkage in Shaker Potassium Channels. Biophysical Journal, 2014, 106, 742a.	0.5	2
30	A Molecular Framework for Temperature-Dependent Gating of Ion Channels. Cell, 2014, 158, 1148-1158.	28.9	98
31	Probing Gating Mechanisms of Sodium Channels Using Pore Blockers. Handbook of Experimental Pharmacology, 2014, 221, 183-201.	1.8	7
32	Tethered Spectroscopic Probes Estimate Dynamic Distances with Subnanometer Resolution in Voltage-Dependent Potassium Channels. Biophysical Journal, 2013, 105, 2724-2732.	0.5	11
33	Free-energy relationships in ion channels activated by voltage and ligand. Journal of General Physiology, 2013, 141, 11-28.	1.9	34
34	Multiple pore conformations driven by asynchronous movements of voltage sensors in a eukaryotic sodium channel. Nature Communications, 2013, 4, 1350.	12.8	76
35	Domain IV voltage-sensor movement is both sufficient and rate limiting for fast inactivation in sodium channels. Journal of General Physiology, 2013, 142, 101-112.	1.9	175
36	Function of Shaker potassium channels produced by cell-free translation upon injection into Xenopus oocytes. Scientific Reports, 2013, 3, 1040.	3.3	22

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37	Estimating the voltage-dependent free energy change of ion channels using the median voltage for activation. Journal of General Physiology, 2012, 139, 3-17.	1.9	78
38	Thermodynamics of electromechanical coupling in voltage-gated ion channels. Journal of General Physiology, 2012, 140, 613-623.	1.9	38
39	Gating transitions in the selectivity filter region of a sodium channel are coupled to the domain IV voltage sensor. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2648-2653.	7.1	57
40	Molecular determinants of coupling between the domain III voltage sensor and pore of a sodium channel. Nature Structural and Molecular Biology, 2010, 17, 230-237.	8.2	49
41	Molecular mechanism of allosteric modification of voltage-dependent sodium channels by local anesthetics. Journal of General Physiology, 2010, 136, 541-554.	1.9	47
42	Deconstructing thermodynamic parameters of a coupled system from site-specific observables. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18856-18861.	7.1	21
43	Improved Probes for Hybrid Voltage Sensor Imaging. Biophysical Journal, 2010, 99, 2355-2365.	0.5	61
44	Local Anesthetics Disrupt Energetic Coupling between the Voltage-sensing Segments of a Sodium Channel. Journal of General Physiology, 2009, 133, 1-15.	1.9	63
45	A Common Pathway for Charge Transport through Voltage-Sensing Domains. Neuron, 2008, 57, 345-351.	8.1	61
46	Î±-Scorpion Toxin Impairs a Conformational Change that Leads to Fast Inactivation of Muscle Sodium Channels. Journal of General Physiology, 2008, 132, 251-263.	1.9	90
47	Nicotinic acetylcholine receptor is internalized via a Rac-dependent, dynamin-independent endocytic pathway. Journal of Cell Biology, 2008, 181, 1179-1193.	5.2	88
48	Î²-Scorpion Toxin Modifies Gating Transitions in All Four Voltage Sensors of the Sodium Channel. Journal of General Physiology, 2007, 130, 257-268.	1.9	72
49	Two atomic constraints unambiguously position the S4 segment relative to S1 and S2 segments in the closed state of Shaker K channel. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 7904-7909.	7.1	164
50	Movement of â€˜gating chargeâ€™ is coupled to ligand binding in a G-protein-coupled receptor. Nature, 2006, 444, 106-109.	27.8	157
51	A hybrid approach to measuring electrical activity in genetically specified neurons. Nature Neuroscience, 2005, 8, 1619-1626.	14.8	169
52	Gating charge displacement in voltage-gated ion channels involves limited transmembrane movement. Nature, 2005, 436, 852-856.	27.8	263
53	Optical detection of rate-determining ion-modulated conformational changes of the ether-a-go-go K+ channel voltage sensor. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18718-18723.	7.1	41
54	Coupling Interactions between Voltage Sensors of the Sodium Channel as Revealed by Site-specific Measurements. Journal of General Physiology, 2004, 123, 217-230.	1.9	103

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55	A fluorophore attached to nicotinic acetylcholine receptor ÂM2 detects productive binding of agonist to the ÂÂ site. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 10195-10200.	7.1	92
56	Arranging the elements of the potassium channel: the T1 domain occludes the cytoplasmic face of the channel. European Biophysics Journal, 2004, 33, 370-6.	2.2	5
57	Tracking Voltage-dependent Conformational Changes in Skeletal Muscle Sodium Channel during Activation. Journal of General Physiology, 2002, 120, 629-645.	1.9	309
58	Modeling of ion permeation in calcium and sodium channel selectivity filters. , 2000, 38, 384-392.		8
59	Exploring the Architecture of Potassium Channels Using ChimÃ¦ras to Reveal Signal Transduction. Bioscience Reports, 1999, 19, 301-306.	2.4	7
60	Functional reconstitution of bacterially expressed human potassium channels in proteoliposomes: membrane potential measurements with JC-1 to assay ion channel activity. Biochimica Et Biophysica Acta - Biomembranes, 1999, 1416, 92-100.	2.6	18
61	Transplanting the N-terminus from Kv1.4 to Kv1.1 generates an inwardly rectifying K+ channel. NeuroReport, 1999, 10, 237-241.	1.2	10