

JÃ©rÃ©me J Lacroix

List of Publications by Year in descending order

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52
papers

1,265
citations

361296

20
h-index

526166

27
g-index

62
all docs

62
docs citations

62
times ranked

1453
citing authors

#	ARTICLE	IF	CITATIONS
1	Focused ultrasound excites cortical neurons via mechanosensitive calcium accumulation and ion channel amplification. <i>Nature Communications</i> , 2022, 13, 493.	5.8	152
2	A mechanism for the activation of the mechanosensitive Piezo1 channel by the small molecule Yoda1. <i>Nature Communications</i> , 2019, 10, 4503.	5.8	136
3	Probing the gating mechanism of the mechanosensitive channel Piezo1 with the small molecule Yoda1. <i>Nature Communications</i> , 2018, 9, 2029.	5.8	104
4	A mechanism for the activation of the Na/H exchanger NHEâ€1 by cytoplasmic acidification and mitogens. <i>EMBO Reports</i> , 2004, 5, 91-96.	2.0	84
5	Moving gating charges through the gating pore in a Kv channel voltage sensor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E1950-9.	3.3	69
6	Control of a final gating charge transition by a hydrophobic residue in the S2 segment of a K ⁺ channel voltage sensor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 6444-6449.	3.3	68
7	Kv3.1 uses a timely resurgent K ⁺ current to secure action potential repolarization. <i>Nature Communications</i> , 2015, 6, 10173.	5.8	54
8	Intermediate state trapping of a voltage sensor. <i>Journal of General Physiology</i> , 2012, 140, 635-652.	0.9	50
9	Molecular Bases for the Asynchronous Activation of Sodium and Potassium Channels Required for Nerve Impulse Generation. <i>Neuron</i> , 2013, 79, 651-657.	3.8	49
10	Can Relative Binding Free Energy Predict Selectivity of Reversible Covalent Inhibitors?. <i>Journal of the American Chemical Society</i> , 2017, 139, 17945-17952.	6.6	44
11	Properties of Deactivation Gating Currents in Shaker Channels. <i>Biophysical Journal</i> , 2011, 100, L28-L30.	0.2	40
12	Molecular mechanism for depolarization-induced modulation of Kv channel closure. <i>Journal of General Physiology</i> , 2012, 140, 481-493.	0.9	39
13	Controlling the Activity of a Phosphatase and Tensin Homolog (PTEN) by Membrane Potential. <i>Journal of Biological Chemistry</i> , 2011, 286, 17945-17953.	1.6	38
14	Development of a PET radioligand for potassium channels to image CNS demyelination. <i>Scientific Reports</i> , 2018, 8, 607.	1.6	36
15	Regulation of Na ⁺ /H ⁺ exchanger 1 allosteric balance by its localization in cholesterolâ€and caveolinâ€rich membrane microdomains. <i>Journal of Cellular Physiology</i> , 2008, 216, 207-220.	2.0	35
16	Crowding-induced opening of the mechanosensitive Piezo1 channel in silico. <i>Communications Biology</i> , 2021, 4, 84.	2.0	35
17	S3-S4 Linker Length Modulates the Relaxed State of a Voltage-Gated Potassium Channel. <i>Biophysical Journal</i> , 2013, 105, 2312-2322.	0.2	30
18	Kinetic Analysis of the Regulation of the Na ⁺ /H ⁺ Exchanger NHE-1 by Osmotic Shocks. <i>Biochemistry</i> , 2008, 47, 13674-13685.	1.2	27

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19	Mutant SOD1 forms ion channel: Implications for ALS pathophysiology. <i>Neurobiology of Disease</i> , 2012, 45, 831-838.	2.1	24
20	Tuning the Voltage-Sensor Motion with a Single Residue. <i>Biophysical Journal</i> , 2012, 103, L23-L25.	0.2	23
21	Probing $\hat{\pm}$ -3 10 Transitions in a Voltage-Sensing S4 Helix. <i>Biophysical Journal</i> , 2014, 107, 1117-1128.	0.2	23
22	Yoda1â€™s energetic footprint on Piezo1 channels and its modulation by voltage and temperature. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	19
23	Mechanical and chemical activation of GPR68 probed with a genetically encoded fluorescent reporter. <i>Journal of Cell Science</i> , 2021, 134, .	1.2	17
24	Polymodal allosteric regulation of Type 1 Serine/Threonine Kinase Receptors via a conserved electrostatic lock. <i>PLoS Computational Biology</i> , 2017, 13, e1005711.	1.5	16
25	On the Role of the Difference in Surface Tensions Involved in the Allosteric Regulation of NHE-1 Induced by Low to Mild Osmotic Pressure, Membrane Tension and Lipid Asymmetry. <i>Cell Biochemistry and Biophysics</i> , 2012, 63, 47-57.	0.9	9
26	Insight into Molecular Mechanism for Activin A-Induced Bone Morphogenetic Protein Signaling. <i>International Journal of Molecular Sciences</i> , 2020, 21, 6498.	1.8	6
27	Multiplexing Focused Ultrasound Stimulation with Fluorescence Microscopy. <i>Journal of Visualized Experiments</i> , 2019, , .	0.2	3
28	LRET Measurements In The Three Major Conformations Of The Shaker K Channel. <i>Biophysical Journal</i> , 2009, 96, 380a-381a.	0.2	0
29	Voltage-Dependent Conformational Changes of the Voltage Sensor of KVAP Measured with LRET. <i>Biophysical Journal</i> , 2009, 96, 484a.	0.2	0
30	Two Structurally Distinct Pathways for the Voltage-Sensing S4 Helices. <i>Biophysical Journal</i> , 2010, 98, 313a.	0.2	0
31	Modular Nature of the Main Domains in Voltage Sensitive Phosphatases. <i>Biophysical Journal</i> , 2010, 98, 313a.	0.2	0
32	The Nature of the Energy Barrier for the Charge Movement in Voltage-Sensors. <i>Biophysical Journal</i> , 2011, 100, 580a.	0.2	0
33	Gate Closure Strictly Follows Voltage-Sensor Movements in KV Channels. <i>Biophysical Journal</i> , 2011, 100, 580a-581a.	0.2	0
34	Position of the Second Gating Charge along S4 in an Intermediate Conformation of a K+ Channel Voltage Sensor. <i>Biophysical Journal</i> , 2012, 102, 530a.	0.2	0
35	Probing S4 Length Changes during Gating with LRET. <i>Biophysical Journal</i> , 2012, 102, 265a.	0.2	0
36	Reducing S3-S4 Linker Length in Shaker K+ Channels Stabilizes the Relaxed State. <i>Biophysical Journal</i> , 2012, 102, 530a.	0.2	0

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37	Molecular Basis for Time Dependent Modulation of Kv3.1 Channels that Assures Action Potential Repolarization. Biophysical Journal, 2013, 104, 125a.	0.2	0
38	Effects of Charged Residues Inserted above R1 in S4-Based Voltage Sensors. Biophysical Journal, 2013, 104, 197a.	0.2	0
39	Molecular Determinants for the Genesis of the Action Potential. Biophysical Journal, 2013, 104, 14a.	0.2	0
40	Probing S4 Re-Arrangement during Gating using Optical Tools. Biophysical Journal, 2013, 104, 276a.	0.2	0
41	Searching for the Interaction Sites of the Beta1 Subunit with the Voltage-Sensing Domains of Sodium Channels Using LRET. Biophysical Journal, 2014, 106, 133a.	0.2	0
42	Effects of Decreased Hydrophobicity above R1 in S4-Based Voltage Sensors. Biophysical Journal, 2014, 106, 742a.	0.2	0
43	Conformational Changes during Voltage Sensing. Biophysical Journal, 2016, 110, 510a.	0.2	0
44	A Minimal Protein Region Required for the Chemical Activation of the Mechanosensitive Channel Piezo1. Biophysical Journal, 2018, 114, 203a.	0.2	0
45	Force-Dependent Conformational Changes in the Mechanosensitive Piezo1 Channel. Biophysical Journal, 2019, 116, 377a.	0.2	0
46	Structural Bases for Chemical and Mechanical Gating in the Piezo1 Channel. Biophysical Journal, 2019, 116, 478a-479a.	0.2	0
47	Domain-Dependent Force Selectivity in the Mechanosensitive Ion Channel Piezo1. Biophysical Journal, 2020, 118, 396a-397a.	0.2	0
48	Dichotomy between heterotypic and homotypic interactions by a common chemical law. Physical Chemistry Chemical Physics, 2021, 23, 17761-17765.	1.3	0
49	Intermolecular Cooperative Gating in Piezo1 Channels. Biophysical Journal, 2021, 120, 157a-158a.	0.2	0
50	iGlow: Real-Time Fluorescence Reporting, Intra-Vesicular Activity, and Helix-8 Independence in a CPGFP-Tagged Mechanosensitive GPCR. Biophysical Journal, 2021, 120, 363a.	0.2	0
51	An Open State Was Induced by Mimicking Mechanosensitive Piezo1 Channel Clusters in Molecular Dynamic Simulations. Biophysical Journal, 2021, 120, 228a.	0.2	0
52	Ion Channels in Biophysics and Physiology: Methods & Challenges to Study Mechanosensitive Ion Channels. Advances in Experimental Medicine and Biology, 2021, 1349, 33-49.	0.8	0