MarÃ-a Queralt-MartÃ-n

List of Publications by Year
in descending order

54 papers	789 citations	516710 16 h-index	526287 27 g-index
57 all docs	57 docs citations	57 times ranked	1154 citing authors

#	Article	IF	Citations
1	Role of Severe Acute Respiratory Syndrome Coronavirus Viroporins E, 3a, and 8a in Replication and Pathogenesis. MBio, 2018, 9, .	4.1	248
2	Insights on the permeability of wide protein channels: measurement and interpretation of ion selectivity. Integrative Biology (United Kingdom), 2011, 3, 159-172.	1.3	49
3	Molecular mechanism of olesoxime-mediated neuroprotection through targeting Î±-synuclein interaction with mitochondrial VDAC. Cellular and Molecular Life Sciences, 2020, 77, 3611-3626.	5.4	39
4	Electrical pumping of potassium ions against an external concentration gradient in a biological ion channel. Applied Physics Letters, 2013, 103, .	3.3	36
5	A lower affinity to cytosolic proteins reveals VDAC3 isoform-specific role in mitochondrial biology. Journal of General Physiology, 2020, 152, .	1.9	36
6	Ion Transport in Confined Geometries below the Nanoscale: Access Resistance Dominates Protein Channel Conductance in Diluted Solutions. ACS Nano, 2017, 11, 10392-10400.	14.6	30
7	Protein Ion Channels as Molecular Ratchets. Switchable Current Modulation in Outer Membrane Protein F Porin Induced by Millimolar La³⁺ Ions. Journal of Physical Chemistry C, 2012, 116, 6537-6542.	3.1	28
8	Pinning and Avalanches in Hydrophobic Microchannels. Physical Review Letters, 2011, 106, 194501.	7.8	27
9	Channel-Inactivating Mutations and Their Revertant Mutants in the Envelope Protein of Infectious Bronchitis Virus. Journal of Virology, 2017, 91, .	3.4	27
10	Assessing the role of residue E73 and lipid headgroup charge in VDAC1 voltage gating. Biochimica Et Biophysica Acta - Bioenergetics, 2019, 1860, 22-29.	1.0	27
11	Multiple neurosteroid and cholesterol binding sites in voltage-dependent anion channel-1 determined by photo-affinity labeling. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2019, 1864, 1269-1279.	2.4	26
12	Targeting the Multiple Physiologic Roles of VDAC With Steroids and Hydrophobic Drugs. Frontiers in Physiology, 2020, 11, 446.	2.8	24
13	Probing Tubulin-Blocked State of VDAC by Varying Membrane Surface Charge. Biophysical Journal, 2012, 102, 2070-2076.	0.5	20
14	Scaling Behavior of Ionic Transport in Membrane Nanochannels. Nano Letters, 2018, 18, 6604-6610.	9.1	20
15	Divalent cations reduce the pH sensitivity of OmpF channel inducing the pK_ashift of key acidic residues. Physical Chemistry Chemical Physics, 2011, 13, 563-569.	2.8	18
16	Increased salt concentration promotes competitive block of OmpF channel by protons. Biochimica Et Biophysica Acta - Biomembranes, 2012, 1818, 2777-2782.	2.6	16
17	Transport mechanisms of SARS-CoV-E viroporin in calcium solutions: Lipid-dependent Anomalous Mole Fraction Effect and regulation of pore conductance. Biochimica Et Biophysica Acta - Biomembranes, 2021, 1863, 183590.	2.6	13
18	Stochastic pumping of ions based on colored noise in bacterial channels under acidic stress. Nanoscale, 2016, 8, 13422-13428.	5.6	12

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19	Lipid Headgroup Charge and Acyl Chain Composition Modulate Closure of Bacterial Î²-Barrel Channels. International Journal of Molecular Sciences, 2019, 20, 674.	4.1	11
20	Electrostatic Interactions Drive the Nonsteric Directional Block of OmpF Channel by La³⁺. Langmuir, 2013, 29, 15320-15327.	3.5	10
21	Effects of extreme pH on ionic transport through protein nanopores: the role of ion diffusion and charge exclusion. Physical Chemistry Chemical Physics, 2016, 18, 21668-21675.	2.8	10
22	VDAC Gating Thermodynamics, but Not Gating Kinetics, Are Virtually Temperature Independent. Biophysical Journal, 2020, 119, 2584-2592.	0.5	10
23	Single-molecule conformational dynamics of viroporin ion channels regulated by lipid-protein interactions. Bioelectrochemistry, 2021, 137, 107641.	4.6	9
24	Experimental demonstration of charge inversion in a protein channel in the presence of monovalent cations. Electrochemistry Communications, 2014, 48, 32-34.	4.7	8
25	Entropyâ€“enthalpy compensation at the single protein level: pH sensing in the bacterial channel OmpF. Nanoscale, 2014, 6, 15210-15215.	5.6	7
26	Fluctuation-Driven Transport in Biological Nanopores. A 3D Poissonâ€“Nernstâ€“Planck Study. Entropy, 2017, 19, 116.	2.2	7
27	Excess white noise to probe transport mechanisms in a membrane channel. Physical Review E, 2015, 91, 062704.	2.1	4
28	Specific adsorption of trivalent cations in biological nanopores determines conductance dynamics and reverses ionic selectivity. Physical Chemistry Chemical Physics, 2021, 23, 1352-1362.	2.8	4
29	Dynorphin A induces membrane permeabilization by formation of proteolipidic pores. Insights from electrophysiology and computational simulations. Computational and Structural Biotechnology Journal, 2022, 20, 230-240.	4.1	4
30	Restricting Î±-synuclein transport into mitochondria by inhibition of Î±-synucleinâ€“VDAC complexation as a potential therapeutic target for Parkinsonâ€™s disease treatment. Cellular and Molecular Life Sciences, 2022, 79, .	5.4	4
31	On the different sources of cooperativity in pH titrating sites of a membrane protein channel. European Physical Journal E, 2016, 39, 29.	1.6	2
32	Entropic Modulation of Ion Transport through OmpF Channel. Molecular Basis of pH Sensing Derived from Cooperative Interactions. Biophysical Journal, 2012, 102, 269a-270a.	0.5	1
33	Mechanistic Insights into Voltage-Induced Closure of Bacterial Beta-Barrel Channels. Biophysical Journal, 2019, 116, 401a.	0.5	1
34	Human VDAC3 Forms VDAC1-Type Anionic Channels that are High-Conducting, Permeable to Metabolites, and Regulated by Cytosolic Proteins. Biophysical Journal, 2019, 116, 155a.	0.5	1
35	Divalent Cations Reduce the pH Sensitivity of OmpF Channel Inducing the PKA Shift of Key Acidic Residues. Biophysical Journal, 2011, 100, 331a.	0.5	0
36	La3+-Induced Asymmetric Current Inhibition in OmpF Channel. Biophysical Journal, 2013, 104, 630a.	0.5	0

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37	Experimental Observation of Surface Charge Inversion in a Biological Nanopore in Presence of Monovalent and Multivalent Cations. Biophysical Journal, 2014, 106, 210a.	0.5	0
38	Electrical Pumping of Potassium Ions Against an External Concentration Gradient in a Biological Ion Channel. Biophysical Journal, 2014, 106, 416a.	0.5	0
39	Current Fluctuation Analysis in a Protein Nanopore. Biophysical Journal, 2015, 108, 634a.	0.5	0
40	Buried Charges and their Effect on Ion Channel Selectivity. Analytical Solutions, Numerical Calculations and MD Simulations. Biophysical Journal, 2016, 110, 245a.	0.5	0
41	Fluctuation-Driven Transport in Bacterial Channels under Acidic Stress. Biophysical Journal, 2017, 112, 545a.	0.5	0
42	Interfacial Effects Dominate Ion Permeation through Membrane Channels in Low Ionic Strength Solutions. Biophysical Journal, 2018, 114, 260a.	0.5	0
43	Assessing the Role of Residue E73 in VDAC1 Voltage Gating. Biophysical Journal, 2018, 114, 660a.	0.5	0
44	Scaling Laws for Ionic Transport in Nanochannels: Bulk, Surface and Interfacial Effects. Biophysical Journal, 2018, 114, 609a.	0.5	0
45	Effect of Steroids on Mitochondrial Metabolite Channel Function and Lipid Membrane Properties. Biophysical Journal, 2019, 116, 269a.	0.5	0
46	Interfacial Effects of Ion Channels in Lipid Membranes: Mean-Field Computation from 3D Atomic Structures Versus Analytical Estimates. Biophysical Journal, 2019, 116, 219a.	0.5	0
47	Gating of Bacterial Beta-Barrel Channels is Regulated by Salt Concentration and Lipid Composition. Biophysical Journal, 2020, 118, 416a.	0.5	0
48	Reduced Affinity of Mitochondrial VDAC3 for Cytosolic Proteins Reveals a Mechanism for VDAC Isoform-Specific Physiology. Biophysical Journal, 2020, 118, 448a.	0.5	0
49	Mechanism of Alpha-Synuclein Translocation into Mitochondria. Biophysical Journal, 2020, 118, 444a-445a.	0.5	0
50	Dynamic Plasticity of Mitochondrial VDAC2 Revealed by Single-Molecule Electrophysiology. Biophysical Journal, 2020, 118, 273a.	0.5	0
51	Assessing the Role of Electrostatic Interactions in the Mechanism of Beta-Barrel Channel Gating. Biophysical Journal, 2021, 120, 156a.	0.5	0
52	Dynorphin a Induces Membrane Permeabilization by Formation of Proteolipidic Pores. Biophysical Journal, 2021, 120, 142a.	0.5	0
53	Bacterial Porins. Springer Series in Biophysics, 2015, , 101-121.	0.4	0
54	THE USE OF CHECKLISTS IN LABORATORY CLASS OF PHYSICS. , 2021, , .		0