Navid Bavi

List of Publications by Year
in descending order

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43 papers	1,087 citations	430874 18 h-index	434195 31 g-index
47 all docs	47 docs citations	47 times ranked	1111 citing authors

#	Article	IF	Citations
1	Biophysical Principles of Ion-Channel-Mediated Mechanosensory Transduction. Cell Reports, 2019, 29, 1-12.	6.4	154
2	Bacterial Mechanosensors. Annual Review of Physiology, 2018, 80, 71-93.	13.1	140
3	The role of MscL amphipathic N terminus indicates a blueprint for bilayer-mediated gating of mechanosensitive channels. Nature Communications, 2016, 7, 11984.	12.8	87
4	Molecular basis of force-from-lipids gating in the mechanosensitive channel MscS. ELife, 2019, 8, .	6.0	84
5	Origin of the Force. Current Topics in Membranes, 2017, 79, 59-96.	0.9	63
6	Biophysical implications of lipid bilayer rheometry for mechanosensitive channels. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 13864-13869.	7.1	59
7	The conformational cycle of prestin underlies outer-hair cell electromotility. Nature, 2021, 600, 553-558.	27.8	53
8	PIEZO1-Mediated Currents Are Modulated by Substrate Mechanics. ACS Nano, 2019, 13, 13545-13559.	14.6	44
9	Lipidâ€“protein interactions: Lessons learned from stress. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 1744-1756.	2.6	43
10	Tuning ion channel mechanosensitivity by asymmetry of the transbilayer pressure profile. Biophysical Reviews, 2018, 10, 1377-1384.	3.2	36
11	Unidirectional incorporation of a bacterial mechanosensitive channel into liposomal membranes. FASEB Journal, 2015, 29, 4334-4345.	0.5	33
12	Cell membrane mechanics and mechanosensory transduction. Current Topics in Membranes, 2020, 86, 83-141.	0.9	31
13	InÂVivo Function of the Chaperonin TRiC in Î±-Actin Folding during Sarcomere Assembly. Cell Reports, 2018, 22, 313-322.	6.4	29
14	Pulling MscL open via N-terminal and TM1 helices: A computational study towards engineering an MscL nanovalve. PLoS ONE, 2017, 12, e0183822.	2.5	28
15	Evolutionary specialization of MscCG, an MscS-like mechanosensitive channel, in amino acid transport in Corynebacterium glutamicum. Scientific Reports, 2018, 8, 12893.	3.3	24
16	Toward a structural blueprint for bilayer-mediated channel mechanosensitivity. Channels, 2017, 11, 91-93.	2.8	23
17	Membrane stiffness is one of the key determinants of E. coli MscS channel mechanosensitivity. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183203.	2.6	23
18	Geometrical Optimization of the Overlap in Mixed Adhesive Lap Joints. Journal of Adhesion, 2013, 89, 948-972.	3.0	20

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19	Shear stress distribution in adhesive layers of a double-lap joint with void or bond separation. Journal of Adhesion Science and Technology, 2013, 27, 1197-1225.	2.6	20
20	Nanomechanical properties of MscL Î± helices: A steered molecular dynamics study. Channels, 2017, 11, 209-223.	2.8	20
21	Structural Dynamics of the MscL C-terminal Domain. Scientific Reports, 2017, 7, 17229.	3.3	16
22	Principles of Mechanosensing at the Membrane Interface. Springer Series in Biophysics, 2017, , 85-119.	0.4	15
23	DQ thermal buckling analysis of embedded curved carbon nanotubes based on nonlocal elasticity theory. Latin American Journal of Solids and Structures, 2015, 12, 1901-1917.	1.0	9
24	Cytoskeleton-Associated Proteins Modulate the Tension Sensitivity of Piezo1. Biophysical Journal, 2018, 114, 111a.	0.5	9
25	Energy of Liposome Patch Adhesion to the Pipet Glass Determined by Confocal Fluorescence Microscopy. Journal of Physical Chemistry Letters, 2016, 7, 4530-4534.	4.6	6
26	Perturbation of Bilayer Surface Tension Differentially Modulates Mechanosensitive Ion Channels. Biophysical Journal, 2017, 112, 416a.	0.5	5
27	Asymmetric effects of amphipathic molecules on mechanosensitive channels. Scientific Reports, 2022, 12, .	3.3	3
28	Gating Mechanism of Mechanosensitive Ion Channels Studied by Continuum Mechanics. Biophysical Journal, 2014, 106, 554a-555a.	0.5	2
29	A Computational Study Towards Engineering an MscL Nanovalve. Biophysical Journal, 2018, 114, 112a.	0.5	2
30	Finite element simulation of the gating mechanism of mechanosensitive ion channels. Proceedings of SPIE, 2013, , .	0.8	1
31	The N-Terminal Domain Acts as an Anchor during the Gating Cycle ofÂMscL. Biophysical Journal, 2015, 108, 564a.	0.5	1
32	Mechanosensitivity of Ion Channels. , 2018, , 1-11.		1
33	Evolutionary Specialization of Corynebacterium glutamicum MscCG, an Mscs-Like Mechanosensitive Channel, in Glutamate Export. Biophysical Journal, 2019, 116, 378a.	0.5	1
34	High-Resolution Structures of MscS in a Lipid Bilayer: Reinterpreting â€œForce from Lipidsâ€•Activation in Mechanosensitive Channels. Biophysical Journal, 2019, 116, 459a.	0.5	1
35	The N-Terminal Helix Acts as a Dynamic Membrane Coupler in the Gating Cycle of the Mechanosensitive Channel MscL. Biophysical Journal, 2016, 110, 116a.	0.5	0
36	Electrophysiological Characterization of Mechanosensitive Channels in the Native Membrane of Corynebacterium Glutamicum. Biophysical Journal, 2017, 112, 534a.	0.5	0

#	Article	IF	Citations
37	Mechanically-Induced Gating in PKD2L1 (Trpp2): Calcium-Induced Activation Masquerading as Force Sensitivity?. Biophysical Journal, 2017, 112, 311a.	0.5	0
38	Structural Dynamics of the MSCL C-Terminal Domain. Biophysical Journal, 2017, 112, 413a.	0.5	0
39	Cellular Mechanotransduction via Ion Channels at the Cell-Substrate Interface. Biophysical Journal, 2018, 114, 19a.	0.5	0
40	Streptomycin Entry is Mediated by the Mechanosensitive Channel MscCG of Corynebacterium Glutamicum. Biophysical Journal, 2018, 114, 491a.	0.5	0
41	Influence of the Lipid-Protein Interface on MSCS Mechanosensitive Channel Gating at High Resolutions. Biophysical Journal, 2020, 118, 523a.	0.5	0
42	From Stretch to Deflection: Fine Tuning Mechanical Activation of ion Channels. Biophysical Journal, 2020, 118, 171a.	0.5	0
43	Mechanosensitivity of Ion Channels. , 2019, , 1-11.		0