Michael M Kozlov

List of Publications by Year
in descending order

59 papers	9,851 citations	76326 40 h-index	138484 58 g-index
65 all docs	65 docs citations	65 times ranked	9797 citing authors

#	Article	IF	Citations
1	How proteins produce cellular membrane curvature. Nature Reviews Molecular Cell Biology, 2006, 7, 9-19.	37.0	1,130
2	Mechanics of membrane fusion. Nature Structural and Molecular Biology, 2008, 15, 675-683.	8.2	853
3	Protein-Lipid Interplay in Fusion and Fission of Biological Membranes. Annual Review of Biochemistry, 2003, 72, 175-207.	11.1	697
4	How Synaptotagmin Promotes Membrane Fusion. Science, 2007, 316, 1205-1208.	12.6	484
5	Mechanisms Determining the Morphology of the Peripheral ER. Cell, 2010, 143, 774-788.	28.9	460
6	Stalk Model of Membrane Fusion: Solution of Energy Crisis. Biophysical Journal, 2002, 82, 882-895.	0.5	399
7	Membrane fission by dynamin: what we know and what we need to know. EMBO Journal, 2016, 35, 2270-2284.	7.8	388
8	Membrane Proteins of the Endoplasmic Reticulum Induce High-Curvature Tubules. Science, 2008, 319, 1247-1250.	12.6	386
9	Mechanisms Shaping the Membranes of Cellular Organelles. Annual Review of Cell and Developmental Biology, 2009, 25, 329-354.	9.4	368
10	Cellular chirality arising from the self-organization of the actin cytoskeleton. Nature Cell Biology, 2015, 17, 445-457.	10.3	350
11	The Hydrophobic Insertion Mechanism of Membrane Curvature Generation by Proteins. Biophysical Journal, 2008, 95, 2325-2339.	0.5	347
12	Membrane Fission Is Promoted by Insertion of Amphipathic Helices and Is Restricted by Crescent BAR Domains. Cell, 2012, 149, 124-136.	28.9	318
13	Lipid Intermediates in Membrane Fusion: Formation, Structure, and Decay of Hemifusion Diaphragm. Biophysical Journal, 2002, 83, 2634-2651.	0.5	251
14	A mitochondria-anchored isoform of the actin-nucleating spire protein regulates mitochondrial division. ELife, 2015, 4, .	6.0	246
15	The 2018 biomembrane curvature and remodeling roadmap. Journal Physics D: Applied Physics, 2018, 51, 343001.	2.8	212
16	Mechanisms shaping cell membranes. Current Opinion in Cell Biology, 2014, 29, 53-60.	5.4	205
17	Stacked Endoplasmic Reticulum Sheets Are Connected by Helicoidal Membrane Motifs. Cell, 2013, 154, 285-296.	28.9	202
18	Protein-driven membrane stresses in fusion and fission. Trends in Biochemical Sciences, 2010, 35, 699-706.	7.5	197

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19	Membrane Fission: Model for Intermediate Structures. Biophysical Journal, 2003, 85, 85-96.	0.5	169
20	Architecture of Lipid Droplets in Endoplasmic Reticulum Is Determined by Phospholipid Intrinsic Curvature. Current Biology, 2018, 28, 915-926.e9.	3.9	148
21	Migrasome formation is mediated by assembly of micron-scale tetraspanin macrodomains. Nature Cell Biology, 2019, 21, 991-1002.	10.3	121
22	Membrane tension and membrane fusion. Current Opinion in Structural Biology, 2015, 33, 61-67.	5.7	118
23	Myomaker and Myomerger Work Independently to Control Distinct Steps of Membrane Remodeling during Myoblast Fusion. Developmental Cell, 2018, 46, 767-780.e7.	7.0	114
24	A model for the generation and interconversion of ER morphologies. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5243-51.	7.1	112
25	Processive capping by formin suggests a force-driven mechanism of actin polymerization. Journal of Cell Biology, 2004, 167, 1011-1017.	5.2	108
26	Model of Polarization and Bistability of Cell Fragments. Biophysical Journal, 2007, 93, 3811-3819.	0.5	101
27	Membrane remodeling in clathrin-mediated endocytosis. Journal of Cell Science, 2018, 131, .	2.0	96
28	Front-to-Rear Membrane Tension Gradient in Rapidly Moving Cells. Biophysical Journal, 2015, 108, 1599-1603.	0.5	87
29	Extracellular annexins and dynamin are important for sequential steps in myoblast fusion. Journal of Cell Biology, 2013, 200, 109-123.	5.2	85
30	Stalk Phase Formation: Effects of Dehydration and Saddle Splay Modulus. Biophysical Journal, 2004, 87, 2508-2521.	0.5	83
31	mDia1 senses both force and torque during F-actin filament polymerization. Nature Communications, 2017, 8, 1650.	12.8	83
32	Membrane curvature induced by proximity of anionic phospholipids can initiate endocytosis. Nature Communications, 2017, 8, 1393.	12.8	80
33	Helfrich model of membrane bending: From Gibbs theory of liquid interfaces to membranes as thick anisotropic elastic layers. Advances in Colloid and Interface Science, 2014, 208, 25-33.	14.7	77
34	Resolving ESCRT-III Spirals at the Intercellular Bridge of Dividing Cells Using 3D STORM. Cell Reports, 2018, 24, 1756-1764.	6.4	69
35	The Protein Coat in Membrane Fusion: Lessons from Fission. Traffic, 2002, 3, 256-267.	2.7	64
36	Membrane-Mediated Interaction between Strongly Anisotropic Protein Scaffolds. PLoS Computational Biology, 2015, 11, e1004054.	3.2	62

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37	Mechanism of membrane-curvature generation by ER-tubule shaping proteins. Nature Communications, 2021, 12, 568.	12.8	55
38	Membrane Curvature and Tension Control the Formation and Collapse of Caveolar Superstructures. Developmental Cell, 2019, 48, 523-538.e4.	7.0	53
39	Caveolae and lipid sorting: Shaping the cellular response to stress. Journal of Cell Biology, 2020, 219, .	5.2	47
40	Fission of Biological Membranes: Interplay Between Dynamin and Lipids. Traffic, 2001, 2, 51-65.	2.7	46
41	Sensing Membrane Stresses by Protein Insertions. PLoS Computational Biology, 2014, 10, e1003556.	3.2	46
42	Influenza Hemagglutinins Outside of the Contact Zone Are Necessary for Fusion Pore Expansion. Journal of Biological Chemistry, 2004, 279, 26526-26532.	3.4	42
43	Membrane Tension Inhibits Rapid and Slow Endocytosis in Secretory Cells. Biophysical Journal, 2017, 113, 2406-2414.	0.5	40
44	Theoretical Analysis of Membrane Tension in Moving Cells. Biophysical Journal, 2014, 106, 84-92.	0.5	35
45	Sphingomyelin metabolism controls the shape and function of the Golgi cisternae. ELife, 2017, 6, .	6.0	33
46	Myomerger promotes fusion pore by elastic coupling between proximal membrane leaflets and hemifusion diaphragm. Nature Communications, 2021, 12, 495.	12.8	32
47	A Model for Shaping Membrane Sheets by Protein Scaffolds. Biophysical Journal, 2015, 109, 564-573.	0.5	24
48	Trans-Membrane Area Asymmetry Controls the Shape of Cellular Organelles. International Journal of Molecular Sciences, 2015, 16, 5299-5333.	4.1	19
49	Determination of Lipid Spontaneous Curvature From X-Ray Examinations of Inverted Hexagonal Phases. Methods in Molecular Biology, 2007, 400, 355-366.	0.9	19
50	Forces and constraints controlling podosome assembly and disassembly. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180228.	4.0	17
51	Mechanism of shaping membrane nanostructures of endoplasmic reticulum. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	15
52	Mapping the electrostatic profiles of cellular membranes. Molecular Biology of the Cell, 2021, 32, 301-310.	2.1	12
53	Model for Bundling of Keratin Intermediate Filaments. Biophysical Journal, 2020, 119, 65-74.	0.5	9
54	Cell motion mediated by friction forces: understanding the major principles. Soft Matter, 2013, 9, 5186.	2.7	7

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55	Spontaneous and Intrinsic Curvature of Lipid Membranes: Back to the Origins. , 2018, , 287-309.		5
56	Molecular mechanics underlying flat-to-round membrane budding in live secretory cells. Nature Communications, 2022, 13, .	12.8	5
57	Membrane shape equations. Journal of Physics Condensed Matter, 2006, 18, S1177-S1190.	1.8	4
58	Myoblast Fusion: Playing Hard to Get. Developmental Cell, 2015, 32, 529-530.	7.0	3
59	Negative tension controls stability and structure of intermediate filament networks. Scientific Reports, 2022, 12, 16.	3.3	3